

# ROYAL GARDENS, KEW.

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### CCCXXXV.—FLORA OF ST. VINCENT AND ADJACENT ISLETS.

#### INTRODUCTION.

St. Vincent is one of the group of islands known in the West Indies as the Colony of the Windward Islands. The other members of this group are St. Lucia, 21 miles to the north, and Grenada, 68 miles to the south-west. Barbados, under a separate Government, is 100 miles due east.

St. Vincent was discovered by Columbus on the 22nd January 1498. It is situated in  $13^{\circ} 10'$  north latitude and  $60^{\circ} 57'$  west longitude. It is 18 miles in length and 11 in breadth, and contains, according to the *Colonial Office List*, nearly 85,000 acres of land, about half the area of Middlesex, with only 13,000 acres under permanent cultivation. The population in 1891 was 41,054. The majority of the adjoining islets, known as the Grenadines, are dependencies of St. Vincent. The following account of these is taken from the excellent "Historical Geography of the Colonies," by Mr. C. P. Lucas, of the Colonial Office.

"These dependencies contained at the last census a population of 2,691, the largest of them being Bequia, the next largest Union Island and Cannouan. Bequia is less than nine miles to the south of St. Vincent. It is of irregular shape, long and narrow, running from north-east to south-west, and it has an area of about six square miles. Its principal bay is Admiralty Bay on the western side. It is badly watered, and perhaps hardly deserves the old account given of it in the history of the Caribby Islands, that 'it would be fruitful enough if it were cultivated,' for but little sugar or other products are now grown here, and the main attraction of the island is its game. Père Labat states that in his time Bequia contained dangerous snakes, and was for that reason called Little Martinique, though, as he says, it might equally well for the same reason have been christened Little St. Lucia." (pp. 220, 1).

According to Bryan Edwards (*Hist. West Indies*, I., p. 405) the area of the several islands in the Grenadines is as follows:—Bequia, 3,700 acres; Union, 2,150 acres; Cannouan, 1,777 acres; and Mustique, about 1,200 acres.



The following particulars of the physical condition of St. Vincent are taken from a *Sketch of the Colony* prepared by Mr. T. B. C. Musgrave for the Jamaica Exhibition, 1891:—

“The geological formation of St. Vincent is volcanic, all the rocks of the island indicating that origin. So recently as in 1812, the ‘Soufrière,’ a mountain at the north end of the island, 4,048 feet high, broke out in eruption and overwhelmed much of the surrounding country with scoria and ashes; a deep crater was then formed, closely adjoining one of still larger dimensions, the result of an eruption at a period more remote. At the bottom of the older crater, some 1,600 feet down, is a small lake about a mile in diameter. The water appears impregnated with sulphur and occasionally emits offensive though invisible fumes.”

“A central backbone of mountainous country, varying in height from 2,000 to 4,000 feet, and densely wooded, traverses St. Vincent from north to south. Rocky and wooded spurs run down to the sea on the west or leeward coast of the island. The east or windward coast, especially towards the north end of the island, in the Carib country, affords much more level land.”

“The Carib country is a broad and fertile tract sloping gently backwards from the sea, for a distance of some four miles, to the base of the hills of the central mountain range which then rises abruptly and culminates in the Soufrière. It derives its name from having, upwards of a century ago, been allotted to the aborigines of the island for their occupation.”

“The Soufrière forms the northern end of this mountain range. Next to it is the Morne Agarou, having an elevation of over 4,000 feet. Mount St. Andrew, about 2,500 feet, forms the southern extremity, and dominates the Kingstown valley.”

“The valleys are fertile and well watered, with fine streams running through them, which turn the different water mills. These streams, in the dry season, comparatively small, swell into raging torrents after heavy rains. The windward slopes of the Soufrière range are drained by a channel called the Dry River, which runs through the Carib country, and which from its peculiarity deserves notice.”

“Before the eruption of the Soufrière in 1812, a stream of average size filled this, now dry, watercourse, and emptied itself into the sea. During the eruption, the channel of the stream was completely filled and choked with scoria, rocks, and gravel, underneath which the water now, in ordinary times, disappears some distance before it reaches the coast, and finds its way to the sea. In floods, however, the water comes down with singular force and volume, filling the rocky bed, which is 200 yards across (where the highway passes it) from bank to bank. The water is described as advancing in huge waves, like the “bore” of a tideway. On these occasions it is very destructive, and it has already washed away many acres of cane land on its right bank.”

The slopes of the higher mountains are scored with deep ravines, and during the rainy season white clouds hover over them day and night. Here the vegetation partakes largely of an arboreal character, with an abundant undergrowth of ferns, and on the margins and banks of streams, species of *Scitamineæ*, *Aroideæ*, *Cyperaceæ*, and some palms. Of tree ferns there are four species of *Cyathea*, two species of *Hemitelia*, and three species of *Alsophila*. At all elevations on mountain slopes are numerous open glades, showing the sites of former cultivation—the provision grounds of the natives—that have become covered with coarse



grasses and dry-loving ferns. The characteristic fern of such localities is *Gleichenia*.

In the lowlands, in valleys, and on easy slopes, the original vegetation has been for the most part cleared for the cultivation of sugarcane, arrowroot, and other plants. On rocky cliffs are found numerous bushes and trees of stunted growth, some of them overhanging the sea. With these are an *Agave* and *Bromeliaceæ*.

St. Vincent is singularly free from swamps. Hence, there is nowhere any large extent of the tangled vegetation so characteristic of swampy districts in the tropics. The Mangrove trees are only sparingly distributed. The Manchineel tree (*Hippomane Mancinella*) and the sea-side grape (*Coccoloba uvifera*) are found on sea beaches.

"The climate is, of course, tropical. The temperature is singularly equable, and averages between 75 and 85 degrees. It is tempered by the N.E. trade winds during nine months of the year. During the months of August, September, and October, the winds become variable, and not unfrequently veer to the south or south-west. Hurricanes or heavy gales are rare. St. Vincent is one of the most healthy islands of the West Indies. The slope of the land causes a natural drainage, and there are no swamps or marshes."

In 1890 the Assistant-Director of the Royal Gardens visited St. Vincent during a term of inspection throughout the West Indies, made at the instance of the Secretary of State. His report, which embodies many particulars regarding its present economic position, will be found in the *Kew Bulletin* for 1890 (pp. 140-145).

In the last century St. Vincent was remarkable for possessing the first Botanic Garden (founded 1765), certainly in the West Indies, and perhaps in any tropical part of the world. An account of this garden is given in the *Kew Bulletin* for 1892, pp. 92-100. It lingered on with a precarious existence till the end of the first quarter of the present century. In 1890 it was revived as one of the system of botanical stations established in the West Indies.

The scientific knowledge of the flora of St. Vincent was limited to the present time to the species enumerated in Grisebach's "Flora of the British West India Islands" (1864). He relied upon a collection made by the Rev. Landsdown Guilding preserved in the Kew Herbarium. As will be seen the fact that these specimens were in every case actually derived from the island is not free from doubt. Besides these Grisebach also worked up some other plants in the Kew Herbarium collected by Alexander Anderson, the second Superintendent of the old Botanic Garden, of whom some particulars are given in the *Kew Bulletin* for 1892 (pp. 94-5), also by George Caley, one of Anderson's successors (*K. B. l. c. p. 97*).

These data supplied at first a very imperfect idea of the total flora. It was obviously therefore desirable to take advantage of any opportunity for completing the botanical exploration of the island. In 1889 Mr. F. Ducane Godman, F.R.S., to whom the scientific world is indebted for the munificent investigation of the natural history of Central America, determined to send a zoological collector to St. Vincent. Mr. H. H. Smith, a native of the United States, and an expert of known skill and experience, was engaged. He was accompanied by his wife, and Mr. Godman, thinking that they might also do some useful work for botany, persuaded them after a visit to Kew to undertake the task. On arriving at St. Vincent they ultimately engaged as assistant in botanical collecting Mr. G. W. Smith (now Curator of the Botanical Garden, Grenada), a native of the Windward Islands.



The very copious collections made by the party during the years 1889 and 1890, at Mr. Godman's cost, were presented by him to the Royal Gardens. There is every reason to suppose that as far as it is practicable under such circumstances they exhaust the actual flora so far as flowering plants and ferns are concerned. But there will be doubtless, as even in our own country, always some additional harvest of species to be obtained by residents in the island who can give their time to a closer investigation of its area.

Mr. H. Powell, the Curator of the revived Botanic Garden, has done good service by sending additional collections since 1890.

The flora of the Grenadines previously to the present investigation was practically unknown.

The following enumeration is a catalogue prepared by the Kew staff of all specimens in the Kew Herbarium professing to be derived from St. Vincent, whether indigenous or naturalised.

Each island is indicated throughout the list by its initial letter.

B.	-	-	-	Bequia.
C.	-	-	-	Cannouan.
M.	-	-	-	Mustique.
U.	-	-	-	Union.
V.	-	-	-	St. Vincent.

As the duplicate specimens have with Mr. Godman's sanction been distributed to various herbaria, the numbers attached to the several specimens of each species are cited throughout for convenience of future reference.

The largest proportion of the plants enumerated were collected by the Smiths. For these no collector's name is given. In the case of other collectors it is added. Synonyms are only given where they are the names employed in Grisebach's flora, which for various reasons are not now adopted.

The statistics of the flora and such points of scientific interest as it presents are discussed in a concluding summary.

As regards the arboreal vegetation of St. Vincent and the most prominent and valuable timber trees of the island, the most recent particulars are given in a *Report upon the Forests of St. Vincent* by E. D. M. Hooper, of the Indian Forest Department, published by the Colonial Office in 1886.

A report upon the fruits of the Colony will be found in the *Kew Bulletin* for 1888 (pp. 187-8).

The position of the once flourishing but now somewhat decaying Arrow-root industry is discussed in the *Kew Bulletin* for 1893 (pp. 191-204).

ENUMERATION OF THE FLOWERING PLANTS AND FERNS OF  
ST. VINCENT AND ADJACENT ISLETS.

DILLENIACEÆ.

*Curatella americana*, L.—V. 1788. Widely spread in tropical South America.

MAGNOLIACEÆ.

*Talauma Plumieri*, DC.—V. 1234. St. Lucia, Martinique, Dominica and Cuba.

ANONACEÆ.

*Trigynæa antillana*, Rolfe; ramis ferrugineo-pubescentibus, foliis breviter petiolatis oblongis acuminatis coriaceis glabris venis supra impressis subtus prominentibus, floribus axillaribus, bracteis ovato-oblongis concavis ferrugineo-pubescentibus, sepalis late triangulo-ovatis cum pedicellis ferrugineo-strigosis, petalis ovato-oblongis concavis crassiusculis subæqualibus, ovariis uniovulatis.

Forest ridges and valleys. V. 1359, 1539.

"*Arbor*, 20 ped. alta." *Folia*  $3\frac{1}{2}$ –7 poll. longa,  $1\frac{3}{4}$ – $2\frac{1}{4}$  poll. lata. *Pedicelli* 2–3 lin. longi. *Sepala* 1 lin. longa. *Petala* 3 lin. longa.

This tropical American genus has not previously been recorded from the West Indies. The *Genera Plantarum* speaks of the ovules as indefinite, but in those we have examined they range from one to few in number.

*Rollinia Sieberi*, A.DC.—V. 621. Trinidad, San Domingo and South Mexico.

*Anona muricata*, L.—V. 403; B. 56; M. 157. Native of tropical America, and now very widely cultivated, so that it is difficult to determine where it is really indigenous.

*Anona palustris*, L.—V. 1518. Tropical America, chiefly along the coast.

*Anona reticulata*, L.—V. 877. Common in tropical America, both wild and cultivated.

*Anona squamosa*, L.—V. 531; B. 151; M. 156. Native of tropical America, but now very generally cultivated in warm countries.

MENISPERMACEÆ.

*Chondodendron tomentosum*, Ruiz et Pav., syn. *Cocculus tamoides*, DC.—V. 528. Widely dispersed in tropical South America.

*Cissampelos Pareira*, L.—V. 355, 1311, 1877. Common in nearly all tropical countries.

NYMPHÆACEÆ.

*Nymphæa ampla*, DC.—V. 1708. This ranges from Texas and North Mexico to Brazil.



## PAPAVERACEÆ.

*Argemone mexicana*, *L.*—V. 182; B. 233. A Mexican plant, now a common weed in many tropical and sub-tropical countries.

*Bocconia frutescens*, *L.*—V. 1370. Widely spread in tropical America.

## CRUCIFERÆ.

*Nasturtium officinale*, *R.Br.*—V. 1590. Most probably introduced from Europe, though Grisebach seems to have considered it indigenous in Cuba.

*Brassica juncea*, *Coss.*, syn. *Sinapis Brassicata*, *L.*—V. 137. Introduced from the Old World.

*Lepidium virginicum*, *L.*—V. 670. A North American species, probably introduced in the West Indies.

*Cakile æqualis*, *L'Herit.*—V., Guilding. Common on sandy sea shores in the West Indies; also found in South Florida and Venezuela.

## CAPPARIDEÆ.

*Cleome pungens*, *Willd.*—V. 4; B. 176. Widely dispersed in tropical America.

*Polanisia viscosa*, *DC.*, syn. *Cleome viscosa*, *L.*—V. 21; B. 177. Introduced from tropical Asia.

*Gynandropsis pentaphylla*, *DC.*, syn. *Cleome pentaphylla*, *L.*—V. 503; B. 175. Widely diffused through the tropics, but probably introduced in the New World.

*Capparis amygdalina*, *Lam.*—V. 1820; M. 118. Widely spread in tropical America.

*Capparis cynophallophora*, *L.*, syn. *Capparis eustachiana*, *Jacq.*—V. 1039, 1622; B. 131; C. 4; M. 116. Widely diffused along the sea-shores of tropical America, also in Fernando Noronha.

*Capparis jamaicensis*, *Jacq.*—V., Guilding; C. 7; M. 117; U. 17, also Powell 91. South Florida and West Indies.

*Cratæva gynandra*, *L.*—V., Guilding; B. 146. Widely spread in tropical America.

## VIOLARIÆ.

*Corynostylis Hybanthus*, *Mart.*—V., Guilding. South Mexico to Columbia and North Brazil.

*Sauvagesia elata*, *Benth.*—V., Guilding. British Guiana.

*Sauvagesia erecta*, *L.*—V. 53. Widely dispersed in tropical and sub-tropical America, also in West Africa, Madagascar, Java, &c.

## BIXINEÆ.

*Bixa Orellana*, *L.*—V. 167. Widely dispersed in tropical and sub-tropical America, and cultivated and naturalised in other countries.

*Flacourtia Cataphracta*, *Roxb.*—V. 559; M. 121, 148. Naturalised.

## POLYGALEÆ.

*Polygala paniculata*, *L.*—V. 570, 1190. Widely dispersed and common in tropical America, from South Mexico to Uruguay.

*Securidaca Lamarckii*, *Griseb.*—V. 719; B. 276. Martinique, Cuba and Jamaica.

## CARYOPHYLLÆÆ.

*Drymaria cordata*, *Willd.*—V. 162, 1367. In almost all tropical and sub-tropical regions.

## PORTULACÆÆ.

*Portulaca oleracea*, *L.*—V. 1939; M. 25. Tropical and sub-tropical regions generally.

*Portulaca pilosa*, *L.*—V. 1196; B. 247. Throughout tropical and sub-tropical America.

*Talinum patens*, *Willd.*—V. 202, 1583; B. without number. Widely spread in tropical and sub-tropical America.

## HYPERICINÆÆ.

*Vismia ferruginea*, *H. B.K.*—V., Guilding. Trinidad, Guiana and Brazil.

## GUTTIFERÆÆ.

*Clusia alba*, *L. (Griseb.)*—V. 339, 349. St. Lucia, Martinique, Dominica, Guadeloupe and Cuba.

*Clusia*, *sp.*—V. 1318; B. 121. And a second undetermined species from Bequia, without a number.

*Rheedia lateriflora*, *L.*—V. 482. Martinique, Dominica, Guadeloupe, Jamaica and Trinidad.

*Calophyllum Calaba*, *Jacq.*—V. 73; B. 39. Widely dispersed in tropical South America.

*Mammea americana*, *L.*—V. 727. Widely dispersed in tropical South America.

## TERNSTÆMIACÆÆ.

*Marcgraavia umbellata*, *L.*—V. 997. Widely spread in tropical South America.

*Norantea Jussiaei*, *Tr. & Pl.*, syn. *Marcgraavia spiciflora*, *Rich.*—V. 1281. Dominica and Guadeloupe.

*Freziera hirsuta*, *Sm.*—V., Guilding. Jamaica and Cuba.

*Freziera undulata*, *Sw.*—V. 575. St. Lucia, Martinique, Dominica, Montserrat, St. Kitts, Jamaica and Trinidad.

*Marila racemosa*, *Sw.*—V. 36. St. Lucia, Martinique, Dominica, Montserrat, St. Kitts, Cuba and Trinidad.

## MALVACÆÆ.

*Malvastrum spicatum*, *A. Gr.*—V. 1597; B. 214. Common in tropical and sub-tropical America, also in Australia, Timor and the



Cape Verde Islands. It is uncertain whether it is really indigenous in the Old World, though Robert Brown collected it in Queensland early in the present century, and it is now very common in East Australia.

*Malvastrum tricuspidatum*, *A. Gr.*—V. 818; B. 164; U. 29, also Powell 92. Common in tropical and sub-tropical America, and naturalised in India, the Canary Islands, &c.

*Sida carpinifolia*, *L.*—V. 113, 113*a*, 991; B. 162, 163; M. 75; U. 33, 34. Widely dispersed in tropical and sub-tropical regions.

*Sida ciliaris*, *L.*—B. 171. Florida and Mexico to Brazil.

*Sida cordifolia*, *L.*—V. 200; B. 159. Common in tropical America, also in Africa and Mauritius.

*Sida glomerata*, *Cav.*—V. 1058; C. 13. Widely dispersed in tropical America.

*Sida rhombifolia*, *L.*—V. 786. Common and widely dispersed in tropical and sub-tropical regions.

*Sida spinosa*, *L.*—V. 1059, 1649. Generally dispersed in the tropics.

*Sida urens*, *L.*—V. 1341. Common in tropical America, also in Africa and Madagascar.

*Wissadula rostrata*, *Planch.*, syn. *Abutilon periplocifolium*, *G. Don.*—C. 16. Widely dispersed in tropical America, also common in tropical Africa and Java.

*Abutilon crispum*, *G. Don.*—V. 695; B. 8; M. 72. Common in south-eastern North America and Central America, also in the western peninsula of India.

*Abutilon indicum*, *G. Don.*—V., Guilding; and var. *hirtum*, *Griseb.*—B. 156. Widely diffused in the tropics.

*Abutilon umbellatum*, *Sweet.*—B. 157, 166; M. 71; U. Powell 88. Jamaica and St. Thomas.

*Malachra capitata*, *L.*—V. 579; M. 73. Widely dispersed in the tropics.

*Malachra radiata*, *L.*—V., Guilding. Widely dispersed in tropical America, and also found in West Africa.

*Urena lobata*, *L.*—V., Guilding. Common and widely dispersed through the tropics.

*Urena sinuata*, *L.*—V. 99. Widely dispersed in tropical regions.

*Pavonia microphylla*, *Casar.*—V., Guilding. Brazil.

*Pavonia typhalæa*, *Cav.*—V. 606, 1359. Widely spread in tropical America.

*Hibiscus Abelsonschus*, *L.*, syn. *Abelsonschus moschatus*, *Medic.*—V. 773. Naturalised. A native of tropical Asia and perhaps also of tropical Africa, where, however, as well as in many other countries, it is extensively cultivated.

*Hibiscus phœniceus*, *Jacq.*—V., Guilding. Common in tropical South America.

*Hibiscus radiatus*, *Cav.*—V. 1650. Introduced from tropical Asia.

*Hibiscus rosa-sinensis*, *L.*—V. 1342. Naturalised. It is uncertain where this is really native, as it has long been cultivated in warm countries, and is now also common in a wild state.



*Hibiscus Sabdariffa*, *L.*—V. 1601. Introduced. Extensively cultivated in the tropics. Uncertain where indigenous.

*Hibiscus tiliaceus*, *L.*, syn. *Paritium tiliaceum*, *A. Juss.*—V. 283, 488, 493; B. 161. A common tree on the sea coast in nearly all tropical countries, including many remote islands.

*Hibiscus vitifolius*, *L.*—V. 1648. Naturalised from the Old World, where it is common in tropical Asia and Africa, and it is also found in Australia.

*Thespesia populnea*, *Corr.*—V. 547; B. 160. Widely dispersed through the tropics of the Old World, now common in the West Indies, chiefly near the coast.

*Gossypium barbadense*, *L.*—V. 1653. Introduced.

*Eriodendron anfractuosum*, *DC.*—V. 159. Inhabits tropical America, Africa and Asia, supposing the species to be the same throughout, concerning which there is much difference of opinion.

*Ochroma Lagopus*, *Sw.*—V. 253. Widely dispersed in tropical America.

#### STERCULIACEÆ.

*Sterculia caribæa*, *R. Br. et Benn.*—V. 459, 645. St. Lucia, Martinique, Dominica, Jamaica and Trinidad.

*Myrodia turbinata*, *Sw.*—V. 496. Mexico, through the West Indies to Guiana and Brazil.

*Melochia nodiflora*, *Sw.*—V. 1055; M. 70. West Indies, South Mexico, and Central America to Columbia and Venezuela.

*Melochia tomentosa*, *L.*—V. 1061; B. 167; C. 19; M. 85, 86; U. 30. Common and widely diffused in tropical America.

*Waltheria americana*, *L.*—V. 600; B. 158. Widely dispersed through tropical and sub-tropical regions.

*Guazuma ulmifolia*, *Lam.*—V. 197, 517; B. 36, 37. Widely dispersed in tropical America.

*Buettneria scabra*, *L.*—V., Guilding. Common in eastern tropical America, extending to Trinidad and St. Vincent.

#### TILIACEÆ.

*Triumfetta grandiflora*, *Vahl.*—V. 1060, 1942. Martinique, Dominica, Mexico and Peru.

*Triumfetta grossularifolia*, *Rich.*—V. 1057, 1943. Cuba.

*Triumfetta Lappula*, *L.*—V., Guilding. A common tropical American species.

*Triumfetta rhomboidea*, *Jacq.*—V. 473. Widely dispersed through the tropics.

*Triumfetta semitriloba*, *L.*—V. 105, 599, 841, 1343, 1945; B. 154, 155. Common in nearly all tropical countries.

*Corchorus acutangulus*, *L.*—V. 1340; B. 168; M. 8. Widely diffused in the tropics.

*Corchorus hirtus*, *L.*—V. 709; B. 165, 170. Eastern tropical America, also Antigua and Tobago.

*Corchorus siliquosus*, *L.*—V. 1056, 1944; B. 169; M. 9. Widely dispersed in tropical America, from Florida and Mexico to Peru and Brazil.

*Apeiba Tibourbou*, *Aubl.*—V., Guilding. Widely dispersed in tropical America.

*Prockia crucis*, *L.*—V. 1847. Widely diffused in tropical America, and northward into Mexico.

*Sloanea sinemariensis*, *Aubl. (non Griseb.\*)*.—V. 535. Martinique, Dominica and Guiana.

#### LINEÆ.

*Erythroxyton obovatum*, *Macf.*—V., Guilding. Martinique, Jamaica, Cuba, Bahamas and Bonacca Island on the coast of Honduras.

*Erythroxyton obtusum*, *DC.*—V. 852, 1525; B. 50, 85; M. 120. St. Lucia, Martinique, Porto Rico, San Domingo, Cuba, Grenada, Tobago and Trinidad.

#### HUMIRIACEÆ.

*Saccoglottis amazonica*, *Mart.*—V., Guilding. Brazil. Mr. H. A. A. Nicholls picked up drift fruits of this on the windward side of Mustique Island in 1891.

#### MALPIGHIACEÆ.

*Byrsonima coriacea*, *DC.*—V. 491, 609, 1253, 1824. Dominica, San Domingo and Jamaica.

*Byrsonima spicata*, *Rich.*—V. 449, 634. East tropical America and West Indies.

*Malpighia coccigera*, *L.*—V. 1725. St. Lucia, Martinique, Dominica and Cuba.

*Malpighia puniceifolia*, *L.*—V., Guilding; B. 77. West Indies and tropical America.

*Malpighia urens*, *L.*—V. 344; B. 144. Guadeloupe, Cuba and Jamaica.

*Bunchosia glandulosa*, *Rich.*—V. 77, 524, 1316, 1777; B. 145; M. 119. Widely diffused in tropical America.

*Bunchosia*, *sp.*—V. 1775.

*Spachea perforata*, *Juss.*—V., Guilding. Not known from elsewhere.

*Heteropterys platyptera*, *DC.*—V. 1549. Widely dispersed in tropical America.

*Heteropterys purpurea*, *H. B. et K.*—V. 1278, 1299, 1867; B. 83, 283; M. 37. Widely dispersed in the West Indies, and, according to Grisebach, also found in Venezuela.

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\* *S. sinemariensis*, Grisebach, is a quite different species, of which the following is the amended synonymy:—*Sloanea Purdiei*, Griseb., ex Benth. et Hook. f. Gen. Pl. II. p. 653 (in nota); *S. sinemariensis*, Griseb. Fl. Brit. W. Ind., p. 99 (non Aubl.); *Pouteria guianensis*, Griseb. Fl. Brit. W. Ind., p. 402 (non Aubl.). In both cases the locality "Guiana" must be excluded. The St. Kitts specimen cited we have not seen, though it is probably *S. sinemariensis*, Aubl. *S. Purdiei* was collected in Trinidad by Purdie, Crüger, and Prestoe.



*Stigmaphyllon fulgens*, *Juss.*—V., Guilding. Guiana and Brazil.

*Stigmaphyllon puberum*, *Juss.*—V. 220, 1261. West Indies, Guiana, and Brazil.

*Stigmaphyllon*, *sp.*—V. 418.

*Tetrapterys inæqualis*, *Car.*—V. 1548, 1863. West Indies, also, according to Grisebach, Costa Rica and Brazil.

*Hiræa simsiana*, *Juss.* syn. *Mascagnia simsiana*, *Griseb.*—V. 429. Jamaica, Tobago and, on the authority of Grisebach, Guiana.

#### ZYGOPHYLLÆ.

*Tribulus maximus*, *L.*—V. 1580; B. 240, 271; M. 29. Common and widely dispersed in tropical and sub-tropical America; also found in West Africa.

*Guaiacum officinale*, *L.*—V. 309. West Indies and Venezuela.

#### GERANIACEÆ.

*Oxalis corniculata*, *L.*—V. 216, 974, 975. Almost cosmopolitan in warm and temperate regions.

*Oxalis corymbosa*, *DC.*, syn. *O. Martiana*, *Zucc.*—V. 885. Brazil. Probably introduced in St. Vincent.

*Oxalis frutescens*, *L.*—V. 793. West Indies and Eastern tropical America.

*Oxalis sepium*, *St. Hil.*—V. 153. Widely dispersed in tropical America.

*Averrhoa Bilimbi*, *L.*—V., Guilding. Introduced? Cultivated and wild in the tropics of both hemispheres, but it is uncertain where it is indigenous, though probably in America.

*Impatiens Balsamina*, *L.*—V. 177, 205. Introduced and colonised.

#### RUTACEÆ.

*Zanthoxylum microcarpum*, *Griseb.*—V. 614. Previously known only from Dominica and Trinidad.

*Zanthoxylum spinosum*, *Sw.*, syn. *Tobinia spinosa*, *Desv.*—V. 1742, 1743. Dominica, Jamaica and Cuba.

*Triphasia trifoliata*, *DC.*—V. 420; M. 143. Introduced. Common in both eastern and western tropical countries, but quite uncertain where it is really indigenous, though probably in the Old World.

*Murraya exotica*, *L.*—B. 80. Introduced. Commonly cultivated in the tropics, and wild in tropical Asia, Australia and Polynesia.

*Citrus Aurantium*, *L.*—V. 815; and var. *spinosissima*, *Mey.*, syn., *C. Lima*, *Macf.*—V. 79. Introduced from Asia.

*Citrus medica*, *L.*, var. *Limonum*, *Risso.*—V. 888. Introduced from Asia.

#### SIMARUBEÆ.

*Quassia amara*, *L. fl.*—V., Guilding. Martinique, Trinidad and tropical America. Said to be introduced in Jamaica.

*Simaba orinocensis*, *H. B.K.*—V., Guilding. Guiana and equatorial Brazil.

*Simaruba amara*, *Aubl.*—V. 1544. St. Lucia, Martinique, Dominica, Bahamas and Guiana.

*Picræna excelsa*, *Lindl.*—V. 498, 647. Antigua and Jamaica.

*Suriana maritima*, *L.*—B. 5, 104; M. 153; U. 17. Common on the coast almost throughout the tropics, including many remote islands.

#### OCHNACEÆ.

*Gomphia nitida*, *Sw.*—V., Guilding. St. Lucia, Antigua, St. Thomas, Cuba, Jamaica, Ruatan Island, in the Bay of Honduras, and Trinidad.

#### BURSERACEÆ.

*Protium guianense*, *March*, syn. *Icica heptaphylla*, *Griseb. Fl. Brit. IV. Ind.*, p. 173. (*non Aubl.*)—V., Guilding. West Indies, Guiana and Venezuela.

*Bursera gummifera*, *L.*—V. 169, 415, 1551; B. 143, 147, 330; M. 142, 159. West Indies and Tropical America.

*Dacryodes hexandra*, *Griseb.*—V. 752. Porto Rico, Montserrat, Dominica, Martinique and St. Lucia, and Grisebach records it from Nevis. (At first mistaken for a *Trattinickia*.)

*Amyris maritima*, *Jacq.*—B. 149, 150. Porto Rico, Cuba, Trinidad and Venezuela.

*Amyris sylvatica*, *Jacq.*—V. 1844. South Florida, West Indies and New Granada.

#### MELIACEÆ.

*Melia Azedarach*, *L.*, syn. *M. sempervirens*, *Sw.*—V. 76. Introduced from Asia.

*Guarea perrottetiana*, *A. Juss.*—V. 172. Martinique, Dominica and Guadeloupe.

*Guarea Swartzii*, *DC.*—V. 398, 532. Dominica, Guadeloupe, Jamaica and Trinidad.

*Trichilia*, *sp.*—V. 661.

*Carapa guianensis*, *Aubl.*—V. without number. Dominica, Trinidad, Nicaragua, Guiana, Brazil and West tropical Africa.

*Swietenia Mahogani*, *L.*—V. 1627. South Florida, West Indies and Central America.

#### OLACINEÆ.

*Ximenia americana*, *L.*—V., Guilding. Widely diffused through the tropics, including Polynesia, if *X. elliptica*, Forst., be regarded as a form of it.

*Schœpfia arborescens*, *Rœm. et Sch.*—B. 148; U. 14. South Florida, West Indies and Central America.

#### ILICINEÆ.

*Ilex dioica*, *Griseb.*—V. 1563. Cuba and Jamaica.

*Ilex*, *sp.* = 279, Hahn, from Martinique.



## CYRILLEÆ.

*Cyrilla antillana*, *Michx.*—V. 948. West Indies and East tropical America.

## CELASTRINEÆ.

*Maytenus tetragonus*, *Griseb.*, syn. *M. gonocladus*, *Griseb.* (*non Mart.*). V. 1285, 1564, 1565. Grenada, Trinidad and, according to Grisebach, Guiana.

*Maytenus*, *sp.*—V. 662, and a second species, B. 62. Possibly both undescribed, but the whole genus is in need of revision.

*Myginda latifolia*, *Sw.*—V. without number. Common in the West Indies.

*Myginda pallens*, *Sm.*—V., Guilding. South Florida and West Indies. This and the preceding may be states of the same species.

*Elæodendron dioicum*, *Griseb.*—V. 446, 1807; B. 125, 126. Guadeloupe, Cuba and Jamaica.

*Hippocratea malpighifolia*, *Rudge.*—V., Guilding. West Indies and East tropical America.

## RHAMNACEÆ.

*Condalia ferrea*, *Griseb.*—V. 1845. South Florida, Bahamas, St. Thomas, Porto Rico, Dominica and Jamaica.

*Colubrina reclinata*, *Brongn.*—V. 1731. South Florida and West Indies.

*Gouania domingensis*, *L.*—V. 1302; B. 38. West Indies and East tropical America.

## AMPELIDEÆ.

*Vitis sicyoides*, *Baker*, syn. *Cissus sicyoides*, *L.*—V. 508, 1304, 1881. Also a monstrous variety.—V. 384, 1928; B. 313; M. 45. Widely spread in the West Indies and tropical America.

*Vitis trifoliata*, *Baker*, syn. *Cissus trifoliata*, *L.*—V. 1882. Widely diffused in the West Indies and tropical America.

## SAPINDACEÆ.

*Urvillea seriana*, *Griseb.*—V. 1297, 1619; M. 93. West Indies and tropical America.

*Cardiospermum Halicacabum*, *L.*—V., Guilding. Throughout the tropics.

*Cardiospermum microcarpum*, *H. B.K.*—V. 521, 1296; B. 313. Widely diffused in tropical regions.

*Paullinia Vespertilio*, *Sw.*—V., Anderson. Dominica, and Grisebach records it from St. Lucia and St. Kitts.

*Schmidelia occidentalis*, *Sw.*—V. 674. West Indies and East tropical America.

*Sapindus inæqualis*, *DC.*—V., Guilding. Widely dispersed in tropical America.

*Hypelate paniculata*, *Camb.*—V. 1545. South Florida, Mexico and West Indies.

*Dodonæa viscosa*, *L.*—M. 129. Cosmopolitan in warm countries.

*Turpinia occidentalis*, *Don.*—V. 258. West Indies and Central America.

#### SABIACEÆ.

*Meliosma Herbertii*, *Rolfe*; arbor (fide *Smith*) ramulis floriferis pubescentibus demum glabris, foliis petiolatis lanceolato- v. obovato-oblongis breviter acuminatis basi attenuatis lævibus, paniculis terminalibus ferrugineo-pubescentibus densifloris, bracteis ovato-oblongis, floribus subsessilibus, sepalis orbicularibus concavis minute ciliatis, petalis similibus sed eciliatis, ovario glabro, fructu pyriformi.

V. 830, 1837. "A small forest tree, 30 to 60 feet high, occurring from 500 to 2,000 feet elevation. Not common. Flowers in April and May."

*Folia* 4-6 poll. longa,  $1\frac{1}{2}$ - $2\frac{1}{2}$  poll. lata; *petiolus* 6-8 lin. longus. *Paniculae* 4-6 poll. longæ. *Flores* vix lineam longi. *Fructus* 8 lin. longus.

This is the second West Indian species in the genus, one being previously known from Cuba.

#### ANACARDIACEÆ.

*Comocladia ilicifolia*, *Sw.*—V. 1528; B. 71; M. 126. St. Lucia, Antigua, St. Kitts, St. Thomas and Porto Rico.

*Mangifera indica*, *L.*—V. 1268. Naturalised. A native of tropical Asia, and cultivated in most tropical countries.

*Anacardium occidentale*, *L.*—V. 683. West Indies and tropical America; naturalised in India and other parts of the Old World.

*Spondias lutea*, *L.*—V. 58; B. 124; M. 160. West Indies and tropical America.

*Spondias purpurea*, *L.*—V. 1527. West Indies and tropical America.

#### MORINGEÆ.

*Moringa pterygosperma*, *Gærtn.*—V. 1001; B. 332. Introduced from the Old World. A native of the forests of the Western Himalaya, and cultivated in other parts of India.

#### CONNARACEÆ.

*Connarus guianensis*, *Lamb.*—V., Guilding. Trinidad and Guiana.

#### LEGUMINOSÆ.

*Crotalaria anagyroides*, *H. B.K.*—V. 1034. Widely dispersed in tropical America.

*Crotalaria fulva*, *Roeb.*—V., Guilding. Introduced from the East Indies.

*Crotalaria incana*, *L.*—V. 1902; B. 256; M. 101. Widely diffused in tropical America, also found in tropical Asia, Africa and Australia.

*Crotalaria pumila*, *Ort.*—V., Guilding. Mexico, West Indies and tropical America.

*Crotalaria retusa*, *L.*—V. 176; B., M. and U. Cosmopolitan in the coast regions of warm countries.



*Crotalaria stipularis*, *Desv.*—V. 157, 1053. West Indies and East tropical America.

*Crotalaria verrucosa*, *L.*—V. 248 ; B. 263 ; M. 103 ; U. 8. Widely dispersed in the warm countries of both hemispheres, but perhaps only colonised in America.

*Indigofera Anil*, *L.*—V. 39, 1189 ; B. 264 ; M. 100. Common in the warmer parts of America, and widely naturalised in the Old World.

*Indigofera hirsuta*, *L.*—V., Guilding. Introduced from the Old World, where it is common in tropical Asia and Africa ; it also occurs in Australia.

*Indigofera tinctoria*, *L.*—V. 1007, 1048. Introduced from the Old World, where it is extensively cultivated and widely spread in a wild state in warm regions.

*Tephrosia cinerea*, *Pers.*—V. 556. Widely dispersed in tropical America.

*Cracca caribæa*, *Benth.*—V. 1041 ; B. 265. West Indies and Central America.

*Sesbania grandiflora*, *Pers.*, syn. *Agati grandiflora*, *Desv.*—V. 352. Introduced from the Old World, where also it is often cultivated. It is a native of the Malay archipelago and North Australia.

*Chætocalyx vincentinus*, *DC.*—V. 1176, 1905 ; B. 262 ; C. 27 ; M. 91, 94 ; U. 10. Dominica.

*Æschynomene americana*, *L.*—V. 642. Common in tropical America.

*Æschynomene sensitiva*, *Sw.*—V. 217. Very common in tropical America, and found also in West tropical Africa, though probably introduced.

*Stylosanthes procumbens*, *Sw.*—B. 242. Common in the West Indies and tropical America.

*Arachis hypogæa*, *L.*—V. 1054. Introduced ; widely cultivated in the tropics. Probably a native of South America, where all the other species of the genus are indigenous.

*Desmodium adscendens*, *DC.*—V. 97. Widely dispersed in tropical America, and also occurring in West tropical Africa.

*Desmodium axillare*, *DC.*—V., 764, 768. Mexico and the West Indies to Peru and South Brazil.

*Desmodium incanum*, *DC.*—V. 118, 998 ; B. 250. Very common in tropical America and the West Indies, and also found in West Africa and Mauritius.

*Desmodium latifolium*, *DC.*—V., Guilding. Introduced from the Old World, where it is very common in tropical Asia.

*Desmodium polycarpum*, *DC.*—V., Guilding. Introduced from the Old World, where it is exceedingly common in the warmer parts of Asia and Polynesia, and has also been found in East Australia.

*Desmodium scorpiurus*, *Desv.*—V. 101. Widely diffused in tropical America, and also found in the Society Islands.

*Desmodium spirale*, *DC.*—V. 1036 ; U. 6. Widely spread in the warmer parts of America, also found in tropical Asia, Africa, and Polynesia.

*Desmodium tortuosum*, *DC.*—V. 765 ; B. 277 ; M. 99. Widely diffused in the warmer parts of America.

*Desmodium triflorum*, *DC.*—V. 148. Almost cosmopolitan in tropical countries.

*Lourea vesperilionis*, *Desv.*—V., Guilding. Introduced from the East Indies.

*Alysicarpus vaginalis*, *DC.*—V. 92, 92*a* ; B. 249. Introduced from the East Indies.

*Abrus precatorius*, *L.*—V. 763. Widely dispersed in the warmer countries of the globe.

*Centrosema Plumieri*, *Benth.*—V., Anderson. Common from Mexico and the West Indies to South Brazil.

*Centrosema pubescens*, *Benth.*—V. 1183. Widely spread in tropical America, with the same range as the last.

*Centrosema virginianum*, *Benth.*—V. 513, 1175 ; B. 252 ; C. 28 ; M. 90. Maryland, North America, through Mexico and the West Indies into South America, also found in tropical Africa.

*Clitoria Ternatea*, *L.*—V. 823 ; B. 253 ; U. 4. Widely dispersed through the tropics.

*Clitoria glycinoides*, *DC.*—V. 402. West Indies and tropical South America.

*Teramnus labialis*, *Spreng.*—V. 1042 ; B. 259. Widely dispersed in the warmer countries of the globe.

*Erythrina Corallodendron*, *L.*—V. 64. Widely dispersed in tropical America.

*Erythrina glauca*, *Willd.*—V. 1630. West Indies and tropical America.

*Erythrina indica*, *Lam.*—V., Guilding. Introduced from the East Indies.

*Mucuna altissima*, *DC.*—V. 538. West Indies and tropical South America.

*Mucuna pruriens*, *DC.*—V. 935. Common throughout the tropics.

*Calopogonium cæruleum*, *Hemsl.* syn. *Stenolobium cæruleum*, *Benth.*—V. 1637. Widely dispersed in tropical America from Mexico and Cuba to Peru and South Brazil.

*Calopogonium mucunoides*, *Desv.*—V. 884. Central America, Guiana and Brazil.

*Galactia longiflora*, *Arn.*—V. 1004, 1182, 1914 ; C. 29. Common in the West Indies.

*Dioclea reflexa*, *Hook. f.*—V. 1030, 1030*a*, 1635. Widely dispersed in the tropics.

*Canavalia ensiformis*, *DC.*, syn. *C. gladiata* var. *ensiformis*, *DC.*—V. 1178, 1179, 1638. Widely distributed in warm regions of the globe.

*Canavalia obtusifolia*, *DC.*—V. 548, 597 ; B. 254. Widely dispersed in tropical regions, including remote islands, where it often springs up from seeds cast ashore.

*Phaseolus adenanthus*, *Mey.*—V. 123, 1180. Tropical America, Australia and India.



*Phaseolus lunatus*, *L.*—V. 1185, 1636. Cultivated and wild in the tropics generally.

*Phaseolus semierectus*, *L.*—V. 1002, 1603, 1640; B. 257, 258; M. 102. Common in tropical America and India, though probably a colonist in the latter country.

*Phaseolus vulgaris*, *L.*—V. 168. Universally cultivated, and commonly wild in most hot countries, but it is uncertain where it is indigenous.

*Vigna luteola*, *Benth.*—V. 270, 595, 769; B. 16. Widely dispersed in the warmer parts of America, and cosmopolitan in the tropics.

*Vigna sinensis*, *Endl.*—V. 1035, 1181. Widely cultivated in the tropics and sub-tropics, including China, but native country uncertain.

*Vigna vexillata*, *Benth.*—V. 145. Widely dispersed in the warmer countries of the globe.

*Pachyrhizus angulatus*, *Rich.*—V. 598, 598a, 1916; B. 255. Widely dispersed in the tropics, and generally cultivated.

*Dolichos Lablab*, *L.*—V. 586; B. 251. Widely dispersed in the tropics.

*Cajanus indicus*, *Spreng.*—V. 499. Common in nearly all tropical countries.

*Rhynchosia minima*, *DC.*—V. 518, 1294; B. 260; M. 92; U. 5. Widely dispersed in the tropics.

*Rhynchosia phaseoloides*, *DC.*—V. 1174. Widely dispersed in tropical America.

*Rhynchosia reticulata*, *DC.*—V., Guilding. Widely spread in tropical America.

*Flemingia strobilifera*, *R. Br.*—V. 436. Introduced from the East Indies.

*Ecastaphyllum Brownii*, *Pers.*—V. 46; B. 284. West Indies, tropical America, and West tropical Africa.

*Ecastaphyllum Monetaria*, *Pers.*—V. 395, 1366. West Indies and East tropical America.

*Machærium robinifolium*, *Vog.*—V. 903. West Indies and East tropical America.

*Drepanocarpus lunatus*, *Mey.*—V., Guilding. West Indies, tropical America and West tropical Africa.

*Pterocarpus Draco*, *L.*—V. 1631. West Indies and tropical America.

*Pterocarpus Rohrii*, *Vahl.*—V., Guilding. Trinidad and East tropical America.

*Platymiscium polystachyum*, *Benth.*, syn. *P. platystachyum*, *Griseb. Fl. Brit. W. Ind.*, p. 200, errore.—V., Guilding. Trinidad and tropical America.

*Lonchocarpus latifolius*, *H. B.K.*—V. 1629, 1907, 1908. Common in tropical America.

*Lonchocarpus violaceus*, *H. B.K.*—V. 588, 742, 1906; B. 268; M. 111. West Indies and tropical America.

*Piscidia Erythrina*, *L.*—V. 1632. South Florida and West Indies, and Grisebach records it from Guayaquil.

*Andira inermis*, *H. B.K.*—V. 74. West Indies, tropical America, and West tropical Africa.

*Inocarpus edulis*, *Forst.*, syn. *Etaballia macrophylla*, *Benth.*—V., Guilding. Introduced from Polynesia.

*Sophora tomentosa*, *L.*—V. 225; U. 12. All tropical sea shores, and extending to sub-tropical latitudes, including many remote islands.

*Ormosia dasycarpa*, *Jacks.*—V. 460, 1909. Guadeloupe, Dominica, and St. Lucia, and Grisebach records it from Montserrat.

*Dussia martinicensis*, *Kr. et Urb. ex. Taub. in Engl. et Prantl Nat. Pflanzenf.*, III., pt. 3, p. 193.—V. 1633. A monotypic genus previously only known from Martinique.

*Diploptropis brachypetala*, *Tul.*—V. 1910. Trinidad and Guiana.

*Swartzia grandiflora*, *Willd.*—V. 483; B. 119. West Indies and tropical America.

*Cæsalpinia Bonducella*, *Fleming*, syn. *Guilaudina Bonducella*, *L.*—V. 766; M. 97. Widely dispersed through the tropics.

*Cæsalpinia Crista*, *L.*—V., Guilding. Bahamas and Cuba.

*Cæsalpinia pulcherrima*, *Sw.*—V. 767, 1038. Widely dispersed in the tropics. Commonly cultivated.

*Cæsalpinia sepiaria*, *Roxb.*—V. 1046. Introduced from the East Indies.

*Hæmatoxylon campechianum*, *L.*—V. 814, 1911; B. 272; M. 105. West Indies, Central and tropical America.

*Parkinsonia aculeata*, *L.*—V., Guilding; B. 13; C. 1; U. Powell 97. Widely dispersed in tropical America, and naturalised in tropical Asia and Africa.

*Cassia alata*, *L.*—V. 363. Tropical America, West Africa, India and Polynesia.

*Cassia bacillaris*, *L.*—V. 1051. Widely dispersed in tropical America, from Mexico and West Indies southward.

*Cassia bicuspidata*, *L.*—V. 761; M. 115. North Mexico and the West Indies to South Brazil and Chili.

*Cassia diphylla*, *L.*—V., Anderson. Widely dispersed in tropical America, from Mexico southward.

*Cassia emarginata*, *L.*—V., Guilding. West Indies and northern part of South America.

*Cassia fistula*, *L.*—V. 941, 1032; B. 278. Introduced from the Old World, but now commonly cultivated in tropical America, and colonised in many places.

*Cassia glandulosa*, *L.*—V. 62, 762, 1044, 1187; B. 275. Widely dispersed in tropical America.

*Cassia glauca*, *Lam.*—V., Guilding. Introduced from the Old World. A native of tropical Asia and Australia.

*Cassia hirsuta*, *L.*—V. 1052. Widely dispersed in tropical America, from Mexico southward.

*Cassia multijuga*, *Rich.*—V., Guilding. Widely spread in tropical America, from Mexico to South Brazil.

*Cassia nictitans*, *L.*—V. 782. North America, from Indiana and Pennsylvania to the West Indies, Mexico, Venezuela and Guiana.



*Cassia obovata*, *Collad.*—U. 11. Introduced from the Old World, where it inhabits tropical Africa and extends eastward to North-west India.

*Cassia occidentalis*, *L.*—V. 8a, B. 266. Now cosmopolitan in the tropics, but probably of American origin.

*Cassia Tora*, *L.*—V. 477, 824, 1118; B. 267. Common in nearly all warm countries of the globe.

*Cassia viminea*, *L.*—V., Guilding. West Indies and eastern tropical America.

*Dialium guineense*, *Willd.*—V., Guilding. A West African tree, probably only cultivated in St. Vincent.

*Bauhinia Kappleri*, *Sagot.*—V. 571. St. Thomas and Guiana.

*Bauhinia megalandra*, *Griseb.*—V. 273. Trinidad, and Grisebach records it from Cuba, St. Kitts, and Antigua.

*Bauhinia ungula*, *Jacq.*—C. 11. Jamaica, and Grisebach records it from St. Thomas, Venezuela, and New Granada.

*Brownea Rosa-de-Monte*, *Berg.*—V., Guilding. Tobago. Grisebach also records it from Venezuela.

*Brownea speciosa*, *Reichb.*—V., Guilding. Grisebach also records it from Trinidad.

*Tamarindus indica*, *L.*—V. 795; B. 273; M. 107. Introduced from the Old World, where it is also largely cultivated. It is supposed to be indigenous in tropical Africa.

*Hymenæa Courbaril*, *L.*—V. 895; B. 269, 270; M. 113, 114. Widely dispersed in tropical America from Mexico southward.

*Copaifera*, *sp.*—V. 1628.

*Pentaclethra filamentosa*, *Benth.*—V., Guilding. Trinidad and tropical America, from Nicaragua to Guiana and North Brazil.

*Entada polyphylla*, *Benth.*—V. 71. Tropical America, from eastern Peru through Guiana and North Brazil.

*Entada polystachya*, *DC.*—V., Guilding. West Indies and tropical America, from Mexico to Columbia, Guiana, and North Brazil.

*Entada scandens*, *Benth.*—V. 668. Generally dispersed in the tropics, especially near the sea.

*Piptadenia peregrina*, *Benth.*—V., Anderson. Trinidad and tropical America, from Venezuela and Guiana to South Brazil.

*Adenanthera pavonina*, *L.*—V. 893; B. 333. Introduced from tropical Asia, where it has a wide range.

*Neptunia plena*, *Benth.*—V., Guilding; U. 2. West Indies and tropical America, from South Mexico to Ecuador and Paraguay. Naturalised in India.

*Desmanthus depressus*, *H. B.K.*—V. 1010; C. 25; M. 98, 101. Widely dispersed in the warmer parts of America, from Florida and Texas, through Mexico and the West Indies to Peru and South Brazil.

*Desmanthus virgatus*, *Willd.*—V. 555; B. 281, 282; M. 95. Tropical and sub-tropical America and tropical Asia, from Mexico and the West Indies to Buenos Ayres.

*Mimosa asperata*, *L.*—V. 658. Widely dispersed in tropical and sub-tropical America and Africa, and in the Mascarene Islands.

*Mimosa casta*, *L.*—V. 562. Martinique, Trinidad and North Brazil.  
*Mimosa Ceratonia*, *L.*—V. 558. St. Thomas, Porto Rico, Dominica, Martinique and St. Lucia, and Grisebach records it from Antigua.

*Mimosa polydactyla*, *Humb.*—V. Guilding. Tropical America, in Columbia, Guiana and Brazil.

*Mimosa pudica*, *L.*—V. 12, 897. A common weed throughout tropical America, and widely naturalised in the Old World.

*Schranckia leptocarpa*, *DC.*—V. 1006. Tropical America, from Columbia to Guiana and Brazil. Found also in tropical Africa and Java, where it is probably introduced.

*Leucæna glauca*, *Benth.*—V. 181, 853; B. 271; M. 106. Common in the warmer regions of both hemispheres, but probably of American origin.

*Acacia arabica*, *Willd.*—V. 564, 906; C. 26; M. 108; U. 3. Introduced from Africa.

*Acacia farnesiana*, *Willd.*—V. 901. Universally dispersed in the warmer regions of both hemispheres, but introduced or cultivated in many localities.

*Acacia riparia*, *H. B.K.*, syn. *A. sarmentosa*, *Griseb. (via Desv.)*—V. 1903. West Indies and tropical America, from Columbia to Guiana and Brazil.

*Acacia Suma*, *Kurz*, syn. *A. Catechu*, *Griseb. (via Willd.)*—V. 942; 1904. Introduced from the East Indies.

*Acacia tamarindifolia*, *Willd.*—V., Guilding; M. 110. Martinique, St. Lucia, Venezuela and Columbia.

*Lysiloma*, three undetermined species.—V. 821, V. 1186, and C. 24.

*Calliandra Guildingii*, *Benth.*—V., Guilding. Trinidad, but there introduced, according to Lane, in Grisebach's flora of the British West Indian islands.

*Calliandra purpurea*, *Benth.*—V. 1000; B. 285. West Indies and Guiana.

*Calliandra tergemina*, *Benth.*—V. Guilding. West Indies and Venezuela.

*Albizzia Lebbek*, *Benth.*, syn. *Acacia Lebbek*, *Willd.*—V. 999; B. 279. Introduced from the Old World, where it has a very wide range in the tropics.

*Pithecolobium latifolium*, *Benth.*, syn. *Calliandra latifolia*, *Griseb.*—V. 1037. West Indies and tropical South America, in the northern part, from Panama eastward.

*Pithecolobium micradenum*, *Benth.*—V. 222, 285, 297. Jamaica, Dominica and St. Lucia.

*Pithecolobium Unguis-cati*, *Benth.*—V. 1634; B. 274; M. 109; U. 7, also Powell 96. Florida, West Indies, Columbia and Venezuela.

*Pithecolobium tortum*, *Mart.*, syn. *Acacia Vincentis*, *Griseb.*—V., Guilding. West Indies and tropical America to Columbia, Guiana, and South Brazil.

*Pithecolobium*, *sp.*—V. 902.



*Enterolobium cyclocarpum*, *Griseb.*—V. without number. West Indies, Nicaragua, Columbia and Venezuela.

*Inga ingoides*, *Willd.*—V. 34. West Indies and tropical America.

*Inga laurina*, *Willd.*—V. 677, 1047, 1912. West Indies and Veraguas.

#### ROSACEÆ.

*Chrysobalanus Icaco*, *L.*—V. 198. West Indies and South Mexico to Panama and eastern South America.

*Chrysobalanus pellocarpus*, *Mey.*—V., Guilding. West Indies and Guiana.

*Licania ternatensis*, *Hook. f.*, syn. *L. hypoleuca*, *Griseb.* (*non Benth.*).—V. 1730. Dominica and Trinidad. Quite distinct from *L. hypoleuca*, *Benth.*, with which Grisebach confounds it.

*Moquilea*, *sp.*—V. 478, 1566, 1838.

*Hirtella paniculata*, *Sw.*—V., Guilding. Trinidad and Guiana.

*Hirtella racemosa*, *Lam.*—V., Guilding. Trinidad and tropical America, from Panama eastward to Guiana.

*Hirtella triandra*, *Sw.*—V. 748. West Indies and tropical America, from Panama eastward and southward in Brazil.

*Prunus occidentalis*, *Sw.*—V., Guilding. Jamaica, Cuba, Guatemala and Panama.

*Prunus sphærocarpa*, *Sw.*, syn. *P. pleuradenia*, *Griseb.*—V., Guilding. West Indies and East tropical America.

*Rubus rosæfolius*, *Sm.*—V. 894. A native of North India and China, commonly cultivated and naturalised in other countries.

#### SAXIFRAGACEÆ.

*Weinmannia pinnata*, *L.*—V. 31. Mexico, West Indies and Guiana.

#### CRASSULACEÆ.

*Bryophyllum calycinum*, *Salisb.*—V. 9, 1586; B. without number; M. 1. Naturalised in tropical America and many other warm countries, and probably native only in Africa.

#### RHIZOPHOREÆ.

*Rhizophora Mangle*, *L.*—V., Guilding. Shores of tropical America, West Africa and Polynesia.

*Cassipourea elliptica*, *Poir.*—V. 679, 938, 1287, 1727, 1728, 1729, 1730. West Indies and northern part of tropical South America

#### COMBRETACEÆ.

*Terminalia Buceras*, *Baill.*, syn. *Bucida Buceras*, *L.*—V. 887. South Florida, West Indies, Central America and northern part of South America.

*Terminalia Catappa*, *L.*—V. 69, 1798. Introduced from tropical Asia, where it has a wide area. Commonly cultivated.

*Terminalia latifolia*, Sw.—B. 127. Jamaica and Trinidad.

*Conocarpus erectus*, Jacq.—V., Guilding; B. 66, 67; U. 18. Widely dispersed on the coasts of tropical America and the Galapagos Islands; also in West tropical Africa, and Grisebach records it from the Marianne Islands.

*Laguncularia racemosa*, Gærtn.—V., Guilding; B. 64, 84; C. 3; M. 132. West Indies, and along the Atlantic coast of tropical America; also in West tropical Africa.

*Combretum eripetalum*, G. Don.—V., Guilding. Trinidad.

*Quisqualis indica*, L.—V. 1892. Introduced from the Old World. Cultivated in tropical countries generally, and believed to be native of Malaya.

#### MYRTACEÆ.

*Psidium Guyava*, Raddi.—V. 827; B. 68. West Indies and tropical America; now widely naturalised in warm countries.

*Psidium guildingianum*, Griseb.—V., Guilding. Not known from elsewhere.

*Myrcia coriacea*, DC.—V. 338, 851, 1802; B. 81. From Cuba and Porto Rico to Trinidad.

*Myrcia divaricata*, DC.—V. 1734. West Indies and tropical America.

*Myrcia ferruginea*, DC., syn. *M. crassinervia*, DC. and *M. duchsassaingiana*, Berg.—V. 259, 643, 1758, 1759, 1760, 1761. These three are clearly forms of one and the same species. West Indies, Guiana and Venezuela.

*Myrcia splendens*, DC.—V. 400. West Indies and tropical America.

*Myrcia*, three undetermined species.—V. 1751, 1752, and 1733, the genus of the latter somewhat doubtful.

*Pimenta acris*, Wight et Arn.—V. 1289, 1289a; B. 15. West Indies and tropical America; also much cultivated and naturalised in the East Indies.

*Eugenia baruensis*, Jacq.—V. 904, 1746, 1747; B. 72. Cuba and Jamaica to Trinidad.

*Eugenia caryophyllata*, Thunb., syn. *Caryophyllus aromaticus*, L.—V., Guilding. Introduced from the Moluccas and now naturalised.

*Eugenia coffeifolia*, DC.—V., Forsyth (Griseb.). Dominica and Guiana.

*Eugenia Jambolana*, Lam., syn. *Syzygium Jambolanum*, DC.—V. 1562. Introduced from the East Indies. Commonly cultivated, and wild from tropical India to North Australia.

*Eugenia Jambos*, L., syn. *Jambosa vulgaris*, DC.—V. 780, 819. Introduced from the Old World. Extensively cultivated, and found wild from North India to Australia.

*Eugenia lambertiana*, DC.—V., Lambert (DC.). Grisebach also records it from Guadeloupe and Panama.

*Eugenia ligustrina*, Willd.—V. 1552; B. 82. West Indies and East tropical America.



*Eugenia malaccensis*, *L.*, syn. *Jambosa malaccensis*, *DC.*—V. 1517. Introduced from the Old World. A native of Malaya, of which there are many varieties in cultivation.

*Eugenia marchiana*, *Griseb.*—V., Anderson (*Griseb.*). Jamaica and Trinidad.

*Eugenia obtusata*, *Willd.*—V. 1524. Jamaica and Dominica.

*Eugenia pseudopsidium*, *Jacq.*—V. 487, 1559, 1736. Dominica and Martinique.

*Eugenia uniflora*, *L.*—V., Guilding. West Indies and East tropical America.

*Eugenia*, two or three undetermined species.—V. 1531, 1558, 1735, 1737, 1738; B. 133, 145. The genus is somewhat doubtful in one or two instances owing to imperfect material.

*Barringtonia speciosa*, *Forst.*—V. 596. Introduced from the Eastern tropics.

*Gustavia antillana*, *Miers.*—V., Guilding. Not known from elsewhere.

*Couroupita antillana*, *Miers.*—V. 1516. Trinidad.

#### MELASTOMACEÆ.

*Nepsera aquatica*, *Naud.*—V., Anderson. West Indies and tropical America.

*Pterolepis glomerata*, *Miq.*, syn. *Arthrostemma glomeratum*, *Naud.*—V. 360. West Indies and tropical America.

*Tibouchina cistoides*, *Cogn.*, syn. *Chaetogastra cistoides*, *Griseb.*—V. 135. Not known from elsewhere.

*Tibouchina longifolia*, *Baill.*, syn. *Arthrostemma lanceolatum*, *Griseb.*—V. 128. Widely dispersed in tropical America.

*Aciotis discolor*, *D. Don.*, syn. *Spennera pellucida*, *Griseb.*, pro parte (*non DC.*)—V., Anderson. Martinique and Trinidad.

*Graffenriedia latifolia*, *Triana*, syn. *Cynopodium latifolium*, *Naud.*—V. 787. West Indies, Venezuela and Columbia.

*Tetrazygia discolor*, *DC.*—V. 47, 121. West Indies and French Guiana.

*Charianthus coccineus*, *D. Don.*—V. 146. West Indies and French Guiana.

*Charianthus glaberrimus*, *DC.*—V., Eggers (*Cogniaux*). Dominica to Trinidad and French Guiana.

*Conostegia calyptrata*, *D. Don.*—V. 994. Montserrat, Guadeloupe, Dominica and Martinique.

*Conostegia subhirsuta*, *DC.*—V. 489. Widely dispersed in tropical America.

*Miconia ciliata*, *DC.*, syn. *M. racemosa* var. *ciliata*, *Griseb.*—V., Anderson. West Indies and tropical America.

*Miconia cinnamomifolia*, *Triana*, syn. *Tetrazygia cornifolia*, *Griseb.*—V., Guilding. Montserrat, Dominica, Martinique and St. Lucia.

*Miconia Fothergilla*, *Naud.*, syn. *Diplochita Fothergilla*, *DC.*—V. 534. West Indies and Eastern tropical America.

*Miconia elongata*, *Vahl.*, syn. *Tetrazygia semicrenata*, *Naud.*—V. 174, 720, 749, 820, 988, 1853; B. 35. Montserrat, Guadeloupe, Dominica, Martinique and Grenada.

*Miconia lævigata*, *DC.*—V. 622, 905, 1608; B. 33, 34. Widely dispersed in tropical America.

*Miconia longifolia*, *DC.*, syn. *Chænopleura longifolia*, *Griseb.*—V. Anderson. Trinidad and tropical America.

*Miconia trinervia*, *D. Don.*—V. 286, 1215, 1855. Jamaica and Grenada.

*Miconia virescens*, *Triana*, syn. *M. lævigata*, *Griseb.*, in part.—V., Eggers (Cogniaux). Tobago, Trinidad and Venezuela.

*Clidemia domingensis*, *Cogn.*—V. Eggers (Cogniaux). San Domingo and Porto Rico.

*Clidemia guadeloupensis*, *Griseb.*, syn. *C. Swartzii*, *Griseb.*, pro parte.—V., Guilding. Guadeloupe and Dominica.

*Clidemia hirta*, *D. Don.*—V. 59. Widely dispersed in tropical America.

*Henriettella triflora*, *Triana.*—V. 462. St. Lucia.

*Blakea pulverulenta*, *Vahl.*—V. 734, 734a. Montserrat, Guadeloupe, Dominica, and Martinique.

*Mouriria rhizophoræfolia*, *Triana*, syn. *Olisbea rhizophoræfolia*, *DC.*—V. cultivated (Caley). Martinique and Trinidad.

#### LYTHRARIÆ.

*Ammannia latifolia*, *L.*—V. 1597. Widely dispersed in the warmer parts of America.

*Cuphea Melvilla*, *Lindl.*—V. Guilding. East tropical America. Grisebach supposes it to be introduced in St. Vincent.

*Cuphea parviflora*, *Hook.*, syn. *C. trinitatis*, *DC.*—V., Guilding. Tobago, Trinidad, and Guiana.

*Lagerstrœmia Flos-Reginæ*, *Retz.*—V. 925. Introduced from tropical Asia.

*Punica Granatum*, *L.*—V. 1531. Introduced from the Old World.

#### ONAGRARIÆ.

*Jussizæa linifolia*, *Vahl.*, syn. *J. acuminata*, *Sw.*—V. 51. Almost universally diffused within the tropics.

*Jussizæa suffruticosa*, *L.*—V. 296, 318, 439; B. 178. Very widely dispersed in warm countries.

#### SAMYDACEÆ.

*Casearia parvifolia*, *Willd.*—V. 816, 1269, 1849. West Indies and East tropical America.

*Casearia ramiflora*, *Vahl.*—V. 940, 1269, 1561. West Indies and East tropical America.

*Samyda serrulata*, *L.*—V. (Grisebach). Jamaica and Cuba to Trinidad.

#### TURNERACEÆ.

*Piriqueta cistoides*, *Mey.*—V. 1228. West Indies and East tropical America.



## PASSIFLOREÆ.

*Passiflora fœtida*, *L.*—V. 796; B. 310. Widely dispersed in the tropics of both hemispheres, though probably introduced in the eastern.

*Passiflora laurifolia*, *L.*—V. 236; B. 132; M. 42. West Indies and East tropical America.

*Passiflora peltata*, *Cav.*—V., Guilding. San Domingo.

*Passiflora quadrangularis*, *L.*—V. 183. Introduced. Said to be indigenous in Nicaragua. Widely cultivated.

*Passiflora rotundifolia*, *L.*—V. 654, 732, 1876. Martinique and Brazil.

*Passiflora rubra*, *L.*—V. 607. West Indies and tropical America.

*Passiflora serrata*, *L.*—V. 1312. West Indies and tropical America.

*Passiflora suberosa*, *L.*—V. 615, 1314, 1315, 1616, 1868, 1869; B. 315, 316; M. 41. Very widely diffused in the warmer parts of America.

*Carica Papaya*, *L.*—V. 505; B. 97. Tropical America, now cultivated in most tropical countries.

## CUCURBITACEÆ.

*Lagenaria vulgaris*, *Ser.*—V. 625. Introduced from the Old World, now widely cultivated in the tropics.

*Luffa cylindrica*, *Rœm.*, syn. *L. acutangula*, *Roxb.*—V. 407, 1310. Introduced from the Old World.

*Momordica Charantia*, *L.*—V. 65. Widely dispersed in the warmer countries of the globe, but probably introduced in America.

*Cucumis Anguria*, *L.*—V. 1368. West Indies and tropical America.

*Citrullus vulgaris*, *Schrad.*—V. 378; B. 326. Native of Africa, now universally cultivated in warm countries.

*Melothria pervaga*, *Griseb.*—V. 590. West Indies and tropical America.

*Anguria umbrosa*, *H. B.K.* — V. 234, 1870, 1872. Trinidad and tropical America.

*Sicydium tamnifolium*, *Cogn.*—V. 716. Cuba and tropical America.

*Ceratosanthes tuberosa*, *Spreng.*—B. 314; M. 36, 43. West Indies and Venezuela.

*Cayaponia americana*, *Cogn.*, syn. *Cionandra cuspidata* and *C. graciliflora*, *Griseb.*—V. 280, 500, 572, 702, 1303. West Indies, common, and Central America.

*Sechium edule*, *Sw.*—V. 1621. West Indies and tropical America.

## BEGONIACEÆ.

*Begonia dominicalis*, *A. DC.*—V. 180, 180a, 274, 274a, 984. Dominica.

*Begonia martinicensis*, *A. DC.*—V., Caley (A. DC.)—Martinique.

*Begonia rotundifolia*, *Lam.*—V., Guilding. Not certainly known from elsewhere, as Plumier's earlier habitat is vaguely stated as "America meridionalis."

*Begonia*, two or three undetermined species.—V. 1191, 1192, 1193, 1605, 1934, 1935; B. 11.

## CACTEÆ.

*Pereskia aculeata*, *Mill.*—B. without number. West Indies and East tropical America.

## FICOIDEÆ.

*Sesuvium Portulacastrum*, *L.*—V. 468 ; B. 6 ; C. 10. Very widely dispersed on seashores in tropical and subtropical countries.

*Trianthema monogynum*, *L.*—V. without number ; C. 14. Widely dispersed in the tropics.

*Mollugo verticillata*, *L.*—V. 404. Widely dispersed in the warmer parts of America.

## UMBELLIFERÆ.

*Eryngium foetidum*, *L.*—V. 256. West Indies and tropical America, and in West tropical Africa, where it may have been introduced.

*Foeniculum vulgare*, *L.*—V. 1588, 1589. Introduced from the Old World.

## ARALIACEÆ.

*Didymopanax glabratum*, *Dene & Planch.*, syn. *Panax attenuatum*, *Sw.*—V. 731. West Indies and Venezuela.

*Oreopanax capitatum*, *Dene & Planch.*, syn. *Sciadophyllum capitatum*, *Griseb.*—V. 131, 155. West Indies and tropical America.

## CAPRIFOLIACEÆ.

*Sambucus canadensis*, *L.*—V. 1267. Possibly introduced from North America, but it also inhabits Mexico.

## RUBIACEÆ.

*Manettia coccinea*, *Griseb.* (*non Willd.*)—V. 730. West Indies, Guiana, Venezuela and Peru.

*Hillia parasitica*, *Jacq.*, syn. *H. longiflora*, *Sw.*—V. 725. West Indies and tropical America.

*Exostemma caribæum*, *Ræm. et Schult.*—V. 1284, 1530 ; B. 111 ; M. 147. West Indies and tropical America.

*Exostemma floribundum*, *Ræm. et Schult.*—V. 122. San Domingo, Dominica, Martinique and St. Lucia.

*Chimarrhis cymosa*, *Jacq.*—V. 889, 1245, 1792. Jamaica, Cuba, Antigua, Dominica, Martinique and St. Lucia.

*Rondeletia americana*, *L.*—V. 778, 1240, 1317, 1831. Grisebach also records it from Jamaica and Cuba.

*Rondeletia arborescens*, *Griseb.*—V. 726. Dominica, Martinique and St. Lucia.

*Rondeletia hirsuta*, *Sw.*—V., Anderson. Jamaica, and Grisebach also records it from St. Thomas.

*Oldenlandia corymbosa*, *L.*—V. 316, 529. Widely dispersed in the tropics.

*Isertia coccinea*, *Vahl.*—V., Guldin. East tropical America.

*Gonzalea spicata*, *DC.*—V. 592 ; B. 113. West Indies and tropical America.



*Schradera capitata*, *Vahl.*—V. 1741. Porto Rico, Montserrat, Dominica, Martinique and St. Lucia.

*Hamelia patens*, *Jacq.*—V. 1247, 1541. West Indies and tropical America.

*Hoffmannia tubiflora*, *Griseb.*—V. 419. Not known from elsewhere.

*Basanacantha spinosa*, *Schumann*, syn. *Randia armata*, *DC.*—V. 1526, 1851. West Indies and tropical America.

*Posoqueria latifolia*, *Rcem. et Schult.*—V., Guilding. East tropical America.

*Randia aculeata*, *L.*—V. 1526, 1851; B. 86; C. 5; M. 149. South Florida and West Indies.

*Randia Mussændæ*, *DC.*—V., Guilding. West Indies and tropical America.

*Genipa americana*, *L.*—V. 632; B. 115; M. 154. West Indies and tropical America.

*Genipa Caruto*, *H. B.K.*—V. 1793. West Indies and tropical America. Probably only a variety of the preceding with the leaves hairy underneath.

*Guettarda crispiflora*, *Vahl.*—V. 82. Dominica, and Grisebach records it from Jamaica, Montserrat and the French islands.

*Guettarda odorata*, *Lam.*—V. 833, 1242a, 1854; B. 75, 76; M. 150. Central America and West Indies.

*Guettarda scabra*, *Lam.*—V. 631, 1547, 1829, 1830; B. 60, 61; M. 144. West Indies and tropical America.

*Antirrhœa acutata*, *Benth. et Hook. f. Gen. Pl.*, II., p. 100, sphalmate "*aristata*"), syn. *Stenostomum acutatum*, *DC.*—V. 756, 911. Guadeloupe.

*Chomelia fasciculata*, *Sw.*—V. 856, 1242; B. 78. Grenada and Brazil.

*Malanea macrophylla*, *Bartl.*—V. 633, 909, 1825, 1826. Trinidad and Guiana.

*Erithalis angustifolia*, *DC.*—V., Guilding. Cuba.

*Erithalis fruticosa*, *L.*—V. 393; B. 41, 42; M. 161. South Florida, Central America and West Indies.

*Chiococca parvifolia*, *Wulfschl.*—V. 1806, 1828; B. 48. West Indies and tropical America.

*Chione glabra*, *DC.*—V. 635. Porto Rico, Dominica and Grenada, and Grisebach records it from Montserrat and Guadeloupe.

*Ixora ferrea*, *Benth.*—V. 442, 542, 1827. West Indies and tropical America.

*Morinda citrifolia*, *L.*—V. 701. Introduced from tropical Asia.

*Coussarea sp.*—V. 1236, 1237, 1746.

*Faramœa odoratissima*, *DC.*—V. 497, 1235. West Indies and tropical America.

*Psychotria crassa*, *Benth.*—V. 1243. West Indies and tropical America.

*Psychotria floribunda*, *H. B.K.*—V. 826, 1246. Guadeloupe, Dominica, Martinique, St. Lucia and New Grenada.

*Psychotria glabrata*, Sw.—V., 576, 1537. Jamaica, Cuba and Porto Rico, and Grisebach records it from Antigua.

*Psychotria horizontalis*, Sw.—V., Guilding; B. 110. West Indies and tropical America.

*Psychotria lanceolata*, Nutt.—V., Guilding. South Florida and West Indies.

*Psychotria Mapouria*, Rœm. et Schult.—V. 1767. Dominica, Martinique and Guiana.

*Psychotria parasitica*, Sw.—V. 17. Jamaica, Cuba, Porto Rico, Dominica, Martinique, and Grisebach records it from Montserrat and St. Kitts.

*Psychotria platyphylla*, DC.—V. 537, 1791; B. 117. Jamaica, Porto Rico, Dominica, Martinique and St. Lucia.

*Psychotria pyramidalis*, Griseb.—B. 118. Cuba and San Domingo.

*Psychotria uliginosa*, Sw., syn. *P. uliginosa* var.  $\alpha$ , Griseb.\*—V. 427. Jamaica, Cuba, Porto Rico, Dominica, Martinique, St. Lucia, Trinidad, and Grisebach records it from Central America and Guiana.

*Psychotria undata*, Jacq.—V. 1238, 1239; B. 26, 28. Central America and West Indies.

*Palicourea crocea*, DC.—V. 334. West Indies and tropical America.

*Rudgea caribæa*, Benth.—V. 261, 464. Dominica, Martinique and St. Lucia, and Grisebach records it from Jamaica, Antigua and Guadeloupe.

*Geophila reniformis*, Don.—V. 444. Widely dispersed in the tropics.

*Cephaelis muscosa*, Sw.—V. 640. West Indies and East tropical America.

*Diodia rigida*, Cham. et Schlecht.—V. (Grisebach). West Indies and tropical America.

*Spermacoce tenuior*, Lam.—V. 1210, 1211; B. 9, 10, 189; U. 20. West Indies, Central America and Brazil.

*Borreria lævis*, Griseb.—V. 84, 370, 655, 788, 989, 1209; B. 190; M. 15. West Indies and tropical America.

*Borreria ocimoides*, DC., syn. *B. parviflora*, Mey.—V. 501, 990. Widely dispersed in the tropics.

*Mitracarpum hirtum*, DC., syn. *M. villosum*, Cham. et Schlecht.—V., Guilding. West Indies and tropical America; also Marianne and Society Islands.

#### COMPOSITÆ.

*Vernonia arborescens*, Sw.—V. 210; B. 297. West Indies and Central America.

*Vernonia tricholepis*, DC.—B. 288. West Indies and tropical America.

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\* Grisebach's var.  $\beta$  is a quite distinct species, and may be defined as follows:—

*Psychotria discolor*, Rolfe, syn. *P. uliginosa* var. *discolor*, Sm., ex Griseb. *Fl. Brit. W. Ind.*, p. 340.—Foliis minute puberulis, cymis subsessilibus densis puberulis. Fructibus multo minoribus.



- Vernonia*, two undetermined species.—V. 359, 922.
- Elephantopus angustifolius*, Sw.—V. 1231. West Indies and tropical America.
- Elephantopus mollis*, H. B.K.—V. 223. West Indies and tropical America.
- Elephantopus spicatus*, Aubl., syn. *Distreptus spicatus*, Cass.—V. 126, 552, 1202, 1203; B. 287. Widely dispersed in tropical America.
- Rolandra argentea*, Rottb.—V. 1212. West Indies and tropical America.
- Adenostemma Swartzii*, Cass.—V. 954. West Indies and tropical America.
- Ageratum conyzoides*, L.—V. 227, 543. Widely dispersed in the tropics.
- Eupatorium celtidifolium*, Lam.—V. 806. West Indies and tropical America.
- Eupatorium iresinoides*, H. B.K.—V. 107, 870. West Indies and tropical America.
- Eupatorium macrophyllum*, L., syn. *Hebeclinium macrophyllum*, DC.—V. 86, 699, 1929. West Indies and tropical America.
- Eupatorium odoratum*, L.—V. 94; M. 83. West Indies and tropical America.
- Eupatorium ossæanum*, DC.—V. 331, 410. Cuba. Originally described from a Cuban specimen, but at Kew it is only represented from St. Vincent.
- Mikania imrayana*, Griseb.—V. 1890. Dominica.
- Mikania orinocensis*, H. B.K.—V. 264. West Indies and tropical America.
- Mikania*, two undetermined species.—V. 20, 1227.
- Egletes domingensis*, Cass.—V. 204. West Indies and tropical America.
- Erigeron apurensis*, Griseb.—V. 568, 657, 738. West Indies and tropical America.
- Erigeron bonariensis*, L.—V. 284, 308, 1008, 1931; B. 206, 329. Widely dispersed in tropical America.
- Erigeron canadensis*, L.—V. 568, 657, 738. Originally American, now an almost cosmopolitan weed.
- Baccharis speciosa*, DC.—V. 1226. Dominica and Martinique.
- Pluchea odorata*, Cass.—V. 160, 1927. West Indies and tropical America.
- Lagascea mollis*, Cav.—V. 808, 898. Mexico and tropical America.
- Clibadium asperum*, DC.—V., Guilding. West Indies and tropical America.
- Clibadium erosum*, DC.—V. 536, 1230. West Indies and tropical America.
- Clibadium fragiferum*, Griseb.—V. 627. Costa Rica, and Grisebach records it from Guadeloupe.
- Parthenium Hysterophorus*, L.—V. 152; B. 299; M. 80. Widely dispersed in the warmer parts of America.

*Zinnia elegans*, *Jacq.*—V., Guilding. A Mexican plant now naturalised in various countries.

*Eclipta erecta*, *L.*, syn. *E. alba*, *Hassk.*—V. 526; B. 304. Widely dispersed in the warmer countries of the globe.

*Wulffia stenoglossa*, *DC.*, syn. *Wulffia havanensis*, *DC.*—V. 285. West Indies and tropical America.

*Wedelia buphthalmoides*, *Griseb.*—V. 299, 1224, 1225; B. 294, 295; M. 84.

*Wedelia carnosae*, *Rich.*—V. 351, 1223. West Indies and tropical America.

*Eleutheranthera ovata*, *Poit.*, syn. *Ogiera ruderalis*, *Griseb.*—V. 723a; B. 205. West Indies and tropical America.

*Tithonia tagetiflora*, *Desf.*—V. 1222. South Mexico and Guatemala. Sparingly naturalised in St. Vincent.

*Melanthera deltoidea*, *Rich.*—V. 49, 81, 330, 369; B. 203; U. 37. West Indies and tropical America.

*Spilanthes acmella*, *L.*, syn. *S. uliginosa*, *Sw.* and *S. exasperata*, *Jacq.*—V. 96, 1592. West Indies and tropical America.

*Spilanthes urens*, *Jacq.*—V., Guilding. West Indies and tropical America.

*Synedrella nodiflora*, *Gertn.*—V. 50, 195, 205, 723, 1219. West Indies and tropical America.

*Cosmos caudatus*, *H. B.K.*—V. 3. Widely dispersed in tropical America.

*Bidens bipinnatus*, *L.*—V. 305. Widely dispersed in the warmer countries of the globe.

*Bidens rubifolius*, *H. B.K.*, syn. *Bidens coreopsidis*, *DC.* V. 1220. Dispersed throughout tropical America.

*Bidens pilosa*, *L.*, syn. *B. leucantha*, *Willd.*—V. 466, 669. Widely dispersed in the warmer countries of the globe.

*Porophyllum ruderale*, *Cass.*—V. 718; B. 292. West Indies and tropical America.

*Tagetes erecta*, *L.*—V. 1221. South Mexico; now naturalised in various tropical countries.

*Pectis humifusa*, *Sw.*—V. 203; M. 24. Jamaica, Porto Rico, Guadeloupe, Dominica, Martinique and St. Lucia.

*Pectis punctata*, *Jacq.*—V. 1232; B. 300; U. 23, 24. West Indies and tropical America.

*Neurolæna lobata*, *R. Br.*—V. 502. West Indies and tropical America.

*Erechthites hieracifolia*, *Rafin.*—V. 618; 660. Widely dispersed in the warmer parts of America.

*Emilia sonchifolia*, *DC.*—V. 63, 98, 229, 672; B. 291; M. 82. Introduced from the Old World.

*Chaptalia nutans*, *Hemsl.* syn. *Leria nutans*, *DC.*—V. 706; B. 290. Widely dispersed in the warmer parts of America.

*Sonchus oleraceus*, *L.*—V. 880, M. 81. A cosmopolitan weed.



## CAMPANULACEÆ.

*Centropogon surinamensis*, *Prest.*—V. (Grisebach). Trinidad and Panama to Brazil and Peru.

*Lobelia* (§ *Tupa*) *cirsifolia*, *Lam.*—V., Guilding. Jamaica and St. Kitts.

*Lobelia* (§ *Tupa*) *sp.*—V. 750 and 750a. Grisebach also mentions an undetermined species related to *Tupa flavescens*, *A.DC.*

## PLUMBAGINÆÆ.

*Plumbago scandens*, *L.*—V. 510; B. 140. Florida ("perhaps introduced from West Indies," A. Gray), Mexico, Central America, and West Indies to Brazil and Chili, also the Galapagos Islands.

## MYRSINÆÆ.

*Myrsine coriacea*, *R. Br.*—V. 1534. West Indies.

*Myrsine læta*, *A. DC.*—V. 139. West Indies. Grisebach includes with this species *M. myricoides*, Schlecht. and *M. flocculosa*, Mart., thus extending the distribution from Mexico to Brazil.

*Grammadenia parasitica*, *Griseb.*—V. 1254. Dominica and Guadeloupe.

*Conomorpha peruviana*, *A. DC.*—V. 1286, 1748. Dominica and St. Lucia, Venezuela, Guiana and Peru.

*Ardisia caribæa*, *Miq.*—V. (Grisebach). West Indies.

*Ardisia laurifolia*, *Juss.*—V. 541, 1570. West Indies.

*Jacquinia armillaris*, *L.*—V. 506; C. 6; M. 146. Eastern Florida, Nicaragua and West Indies to Venezuela and Brazil.

## SAPOTACEÆ.

*Chrysophyllum Cainito*, *L.*—V. 1762. West Indies, Panama, Guiana, Columbia and Peru.

*Chrysophyllum glabrum*, *Jacq.*—V. 912, 1283, 1756, 1803. West Indies and Guiana.

*Chrysophyllum microphyllum*, *Jacq.?*—V. 755, 1753. West Indies.

*Lucuma multiflora*, *A. DC.*—V. 472, 1535, 1785. Jamaica and St. Lucia.

*Sideroxylon*, an undetermined species.—V. without number.

*Achras Sapota*, *L.*, syn. *Sapota Achras*, *Mill.*—V. 1576; B. 108. Mexico and West Indies to north part of South America. Commonly cultivated for its fruit in America and elsewhere.

*Mimusops dissecta*, *R. Br.*—V., Guilding. Bahamas and Trinidad, also in the Pacific Islands.

*Mimusops Kauki*, *L.*—V., Guilding. Naturalised in St. Vincent, according to Grisebach. Malayan Peninsula and Archipelago, also tropical Australia.

## EBENACEÆ.

*Maba inconstans*, *Griseb.*—V., Guilding; B. 152. New Grenada.

*Diospyros*, species undetermined.—B. 45.

## STYRACEÆ.

*Symplocos martinicensis*, *Jacq.*—V. 354. West Indies.

*Styrax*, species undetermined.—V. 1656.

## OLEACEÆ.

*Forestiera rhamnifolia*, *Griseb.*—V. without number. Cuba.

*Linociera compacta*, *R. Br.*—V. 626, 1568; B. 30, 31. West Indies, Venezuela and Brazil.

*Linociera*, species undetermined.—V. 1841.

## APOCYNACEÆ.

*Allamanda cathartica*, *L.*—V. 996. West Indies (naturalised and cultivated according to *Grisebach*) and Central America to Peru and Brazil.

*Rauwolfia Lamarckii*, *A. DC.*—V. 557; B. 27; M. 141. West Indies and Ecuador.

*Thevetia neriifolia*, *Juss.*—V. 810. Common in many parts of tropical America and the West Indies, but often cultivated.

*Aspidosperma sessiliflorum*, *Muell. Arg.*—V., *Guilding*. Trinidad.

*Vinca rosea*, *L.*—V. 175; B. 195. Florida and West Indies, to Brazil, also tropical Africa and Asia to China.

*Plumeria alba*, *L.*—V. 550, 678; B. 99; M. 163. West Indies.

*Tabernæmontana citrifolia*, *L.*—V. 38; B. 29. West Indies.

*Tabernæmontana undulata*, *Vahl.*—V., *Guilding*; perhaps cultivated (*Grisebach*); Trinidad and Guiana.

*Malouetia retroflexa*, *Muell. Arg.*—V., *Guilding*. Confined to St. Vincent, so far as at present known.

*Prestonia venosa*, *Rolfe*, syn. *Hæmadietyon venosum*, *Lindl.*—V. (*Grisebach*). West Indies and New Grenada.

*Echites circinalis*, *Sw.*—V., *Guilding*. Haiti.

*Rhabdadenia biflora*, *Muell. Arg.*, syn. *Echites biflora*, *Jacq.*—B. 70, 328. West Indies, Venezuela and Guiana to Brazil.

*Urechites Neriandra*, *Rolfe*, syn. *Echites Neriandra*, *Griseb.*—V., *Andrews*. West Indies.

## ASCLEPIADEÆ.

*Macroscepis*, *n. sp.*?—V. 1862.

*Oxyptalum*, species undetermined.—V. 1617.

*Calotropis procera*, *R. Br.*—U. 25. Introduced into tropical America from the Old World.

*Asclepias curassavica*, *L.*—V. 770; M. 4. Common in nearly all warm countries.

*Metastelma parviflorum*, *R. Br.*—V. 1295. West Indies and Mexico to Columbia.

*Roulinia*? Two undetermined species doubtfully referred to this genus.—V. 803, 1618; M. 39.

*Gonolobus martinicensis*, *Dcne.*—V. 382. Dominica and Martinique.

*Gonolobus maritimus*, *R.Br.*, syn. *Ibatia muricata*, *Griseb.*—V. 1300; B. 324, 325. Antigua, Dominica, Guadeloupe and Venezuela.



## LOGANIACEÆ.

*Spigelia Anthelmia*, *L.*—V. 179; B. 221; M. 6. Common and widely dispersed in tropical America.

## GENTIANEÆ.

*Voyria tenella*, *Guild.*—V., Guilding. Jamaica.

*Voyria uniflora*, *Lam.*—V. 440. West Indies and Guiana to South Brazil and New Granada.

*Enicostema littorale*, *Bl.*, syn. *Slevogtia occidentalis*, *Griseb.*—V. 319; B. 188. West Indies, also India, Malaya and tropical Africa.

*Coutoubea spicata*, *Aubl.*—V. 684. Trinidad and Central America to Columbia, Guiana and Brazil.

*Lisianthus frigidus*, *Sw.*—V. 18. Dominica and Guadeloupe.

*Lisianthus uliginosus*, *Griseb.*—V., Guilding. Guiana and Brazil.

## HYDROPHYLLACEÆ.

*Hydrolea spinosa*, *L.*—V., Guilding. Widely dispersed in the warmer parts of South America.

## BORAGINEÆ.

*Cordia Collococca*, *L.*—V. 1546, 1836; B. 138; M. 131, 162. Mexico, West Indies, and Columbia.

*Cordia cylindrostachya*, *Rœm. et Schult.*—V. 470; B. 87; M. 158. West Indies and tropical America.

*Cordia dasycephala*, *Kunth.*—C. 18; U. 36. Mexico and West Indies to Guiana and Venezuela.

*Cordia Gerascanthus*, *Jacq.*—V. 1244, 1249. Central America and West Indies to Brazil.

*Cordia sulcata*, *DC.*—V. 771. West Indies.

*Cordia tremula*, *Griseb.*—V. 452, 1522; B. 123. Barbadoes.

*Cordia ulmifolia*, *Juss.*—V. 781, 1813. West Indies and Panama southward to Brazil and Peru.

*Bourreria exsucca*, *Jacq.*—V., Guilding. New Granada and Venezuela.

*Bourreria succulenta*, *Jacq.*—V. 551, 569, 846; B. 141; M. 130. West Indies.

*Tournefortia bicolor*, *Sw.*—V. 110, 337, 434, 1771. Mexico, West Indies and tropical America.

*Tournefortia caribæa*, *Griseb.*—V. 1540. Dominica and Trinidad.

*Tournefortia cymosa*, *L.*—V. 876, 1264, 1542. Jamaica and Cuba.

*Tournefortia filiflora*, *Griseb.*—V. 1260. West Indies.

*Tournefortia gnaphalodes*, *R. Br.*—V., Guilding; B. 7; M. 26. Florida and West Indies.

*Tournefortia hirsutissima*, *L.*—V., Guilding. A common plant in Mexico, the West Indies, Central America, and the northern part of South America.

*Tournefortia volubilis*, *L.*—V. 341, 1277; B. 135; M. 38. West Indies and Venezuela to Brazil.

*Heliotropium curassavicum*, *L.*—M. 21; U. 34. A common plant from Oregon to Patagonia, chiefly in maritime and saline regions, also in Australia, South Africa, and the Pacific Islands.

*Heliotropium fruticosum*, *L.*—V. 977; B. 186. Mexico and the West Indies to the northern part of South America.

*Heliotropium indicum*, *L.*—V. 7, 1213; B. 230, 231; M. 19. A very widely dispersed plant in tropical and sub-tropical countries; but it is supposed to have been introduced into America from the Old World.

*Heliotropium parviflorum*, *L.*—V. 591, 1582. Widely dispersed in the warmer parts of America.

#### CONVULVULACEÆ.

*Argyreia speciosa*, *Choisy*, syn. *A. bracteata*, *Choisy*.—V. 1611. Introduced from India, and naturalised in Jamaica and Antigua.

*Argyreia tiliæfolia*, *Wight*.—V. 1610. Introduced from tropical Asia, now common in the West Indies.

*Ipomœa acuminata*, *Rœm. et Schult.*—V. 1170. Guatemala and West Indies to Brazil.

*Ipomœa Batatas*, *Lam.*—V. 1167, 1309. The sweet potato is almost universally cultivated in hot countries; and it is also common in a wild state, but its origin is uncertain. It is supposed, however, that the tropical American *I. fastigiata* may be the wild original.

*Ipomœa biloba*, *Forsk.*, syn. *I. pes-capræ*, *Sweet.*—V. 490; B. 319. Generally dispersed on the sea-shores of the tropics.

*Ipomœa bona-nox*, *L.*—V. 1292, 1613; B. 318. Widely diffused in the tropics.

*Ipomœa cathartica*, *Poir.*—V. 1169. Florida (perhaps introduced) and West Indies to Brazil.

*Ipomœa cissoides*, *Griseb.*—V. 1158. Mexico and West Indies to Brazil.

*Ipomœa coccinea*, *L.*—V. 1172. Tropical America, Asia and Africa.

*Ipomœa digitata*, *L.*—V., Guilding. Generally dispersed in the tropics, chiefly on the sea-shore.

*Ipomœa fastigiata*, *Sweet.*—V. 116, 612, 1164, 1165, 1166, 1293. West Indies and East tropical America.

*Ipomœa filiformis*, *Jacq.*—V., Guilding. West Indies.

*Ipomœa grandiflora*, *Lam.*—V. 1609; B. without number. Cultivated in tropical America. Introduced from the Old World.

*Ipomœa hederacea*, *Jacq.*—V. 1168, 1290. Common in the warmer parts of America, and now widely dispersed in other countries.

*Ipomœa macrorrhiza*, *Michx.* (*non Rœm. et Schult.*), syn. *I. Jalaps*, *Pursh.* (*non Nutt.*).—V., Guilding. South Carolina and Mexico to the West Indies.

*Ipomœa pentaphylla*, *Jacq.*—V. 1157. Generally dispersed in the tropics.

*Ipomœa pterodes*, *Choisy*.—V. 1159, 1159a, 1159b. Trinidad, Panama, Venezuela and Guiana.

*Ipomœa Quamoclit*, *L.*—V. 1171. Generally dispersed in tropical and sub-tropical regions.

*Ipomœa repanda*, *Jacq.*—V. 1301, 1612. West Indies.

*Ipomœa sinuata*, *Ort.*, syn. *I. dissecta*, *Pursh.* (*non Willd.*).—V. 250; B. 317. Widely dispersed in the warmer parts of America.

*Ipomœa tuba*, *Don.*—V., Guilding. West Indies and Guiana.

*Ipomœa umbellata*, *Mey.*—V. 1160; B. 308, 320. Mexico, West Indies and tropical America.

*Ipomœa*, four or five undetermined species.—V. 1160*a*, 1161, 1164, 1308, 1920; B. 322, 323.

*Jacquemontia tamnifolia*, *Griseb.*—V. 310. Southern United States and West Indies to Guiana and Brazil.

*Jacquemontia violacea*, *Choisy* syn. *Convolvulus pentanthus*, *Jacq.*—V. 619, 619*a*, 1919; B. 4; M. 47. Florida and Mexico southward to Peru and Brazil.

*Convolvulus micranthus*, *Rcem. et Schult.*—V., Guilding. Mexico and the West Indies to Brazil.

*Convolvulus nodiflorus*, *Desc.*—V. 1162, 1163. Mexico and the West Indies to Venezuela and Ecuador.

*Evolvulus mucronatus*, *Sw.*—V., Guilding. C. 30; M. 28. Florida and Mexico southward to Peru and Brazil.

*Porana paniculata*, *Roxb.*—V. 1654. Introduced from India.

*Cuscuta americana*, *L.*—V. 390. Mexico and the West Indies to Brazil.

#### SOLANACEÆ.

*Lycopersicum esculentum*, *Mill.*—V. 282, 982. Common in Mexico and Central America as well as in other parts of tropical America and the West Indies; but it is difficult to determine where it is really indigenous and where only naturalised.

*Solanum bahamense*, *L.*—V., Guilding. B. 234; M. 76. Mexico and the West Indies.

*Solanum callicarpifolium*, *H. B.K.*—V. 294, 294*a*. Mexico and the West Indies to Guiana.

*Solanum ciliatum*, *Lam.*, syn. *S. aculeatissimum*, *Griseb.* (*non Jacq.*).—V. 985. Bahamas and Porto Rico, also Brazil.

*Solanum hirtum*, *Vahl.*—V. 1946. Trinidad.

*Solanum igneum*, *L.*—V. 698, 1948; B. 232; M. 78, 79. West Indies and Guiana.

*Solanum lanceæfolium*, *Jacq.*—V. 654. Mexico and West Indies to Venezuela and Brazil.

*Solanum mammosum*, *L.*—V. 329. U. 26. Mexico and West Indies to Columbia and Guiana.

*Solanum neglectum*, *Dun.*—V. 511, 1263. Mexico and West Indies.

*Solanum nigrum*, *L.*, syn. *S. nodiflorum*, *Jacq.*—V. 95, 450, 639, 1330, 1950; B. 237. A common weed in nearly all tropical and temperate countries; but it is impossible to determine where it is really indigenous.



- Solanum racemosum*, *L.*—V. 343. West Indies.
- Solanum retrofractum*, *Vahl.*—B. 180; M. 77. Jamaica.
- Solanum seaforthianum*, *Andr.*—V., Guilding. West Indies, Panama, Venezuela and Guiana.
- Solanum torvum*, *Sw.*—V. 252. Widely dispersed in tropical America and Asia.
- Solanum triste*, *Jacq.*—V. 495, 751, 1772. Mexico and West Indies to Guiana and Peru.
- Solanum*, two undetermined species.—V. 45, 1575.
- Physalis angulata*, *L.*—V. 368, 1328, 1329; B. 239. A very widely diffused species in tropical countries.
- Physalis minima*, *L.*—V. 1947, 1949; B. 238. A widely diffused species in the tropics.
- Brachistus macrophyllus*, *Miers*, syn. *Witheringia macrophylla*, *Kunth.*—V. 1252. Mexico and Jamaica to Venezuela and Columbia.
- Capsicum frutescens*, *L.*—V. 792. Nearly all tropical countries; though probably of American origin.
- Acnistus arborescens*, *Schlecht.*—V. 242. Mexico and West Indies southward to Peru and Brazil.
- Solandra grandiflora*, *Sw.*—V. 1298. Mexico and West Indies to Columbia and Brazil.
- Datura fastuosa*, *L.*—B. 236. Introduced from the Old World.
- Datura Stramonium*, *L.*—V. 516, 1331. Generally regarded as an Old World species, but it is now common in most tropical and temperate countries.
- Datura suaveolens*, *Humb. et Bonpl.*—V. 983. Introduced from tropical South America.
- Cestrum latifolium*, *Lam.*—V. 567. Trinidad.
- Cestrum macrophyllum*, *Griseb. (non Vent.)*—V. 421, 1262, 1773, 1774. West Indies.
- Cestrum vespertinum*, *L.*—V. 184, 435, 1852. West Indies and Panama southward to Peru and Brazil.
- Nicotiana Tabacum*, *L.*—V. 1607. A native of South America, now widely dispersed in warm countries.
- Browallia demissa*, *L.*—V. 1577. West Indies, Central America and Columbia to Guiana and Brazil.

## SCROPHULARINEÆ.

- Stemodia parviflora*, *Ait.*—V. 869. Mexico and West Indies southward to Brazil and Peru.
- Vandellia diffusa*, *L.*—V. 228. Generally dispersed in tropical America, Africa and Madagascar.
- Scoparia dulcis*, *L.*—V. 268, 1578; B. 208. A common plant in nearly all tropical and sub-tropical countries.
- Capraria biflora*, *L.*—V. 303, 1218; B. 209, 210, 211; M. 7; U. 21. Widely dispersed in the warmer parts of America from Florida and Mexico to Brazil and Peru, also in West tropical Africa.
- Alectra brasiliensis*, *Benth.*—V. 371. Trinidad, Guiana, and South Brazil to New Granada.

## LENTIBULARIÆ.

*Utricularia montana*, *Jacq.*—V. 130, 467, 1952. West Indies and tropical America.

## GESNERACEÆ.

*Pentarrhaphia longiflora*, *Lindl.*—V. 55. <sup>z</sup> West Indies.

*Tussacia pulchella*, *Reichb.*—V., Guilding. West Indies, Panama and Columbia.

*Episcia melittifolia*, *Mart.*—V. 27, 519, 629, 1585. West Indies.

*Alloplectus cristatus*, *Mart.*—V. 147. West Indies and Guiana.

*Columnnea scandens*, *L.*, syn. *C. speciosa*, *Presl.*—V. 16. West Indies and East tropical America.

*Besleria lutea*, *L.*—V. 25. West Indies and Venezuela to New Grenada and tropical Brazil.

*Besleria*, *sp.*—V. 610, 1275, 1276, 1519.

## BIGNONIACEÆ.

*Bignonia æquinoctialis*, *L.*—V. 1553. West Indies and Central America to Brazil.

*Bignonia rufinervis*, *Hoffmannsegg.*—V., Guilding. Venezuela, Guiana and Brazil.

*Bignonia unguis*, *L.*—V. 822, 1875 ; B. 321 ; M. 40. Mexico and West Indies.

*Amphilophium paniculatum*, *Kunth.*—V. 899, 939, 1043, 1860. West Indies and tropical America.

*Tanæcium crucigerum*, *Seem.*—V., Guilding. Dominica.

*Tabebuia serratifolia*, *Rolfe*, syn. *Tecoma serratifolia*, *G. Don.*—V. 1652. Trinidad.

*Tabebuia*, *sp.*—V. 465 ; B. 69 ; M. 134.

*Tecoma stans*, *Juss.*—V. 667 ; B. 59 ; M. 133. Southern United States, Mexico and West Indies to Columbia and Peru.

*Tecoma spectabilis*, *Planch.*—V., Guilding. Trinidad and Venezuela.

*Jacaranda obtusifolia*, *Humb. et Bonpl.*—V. 1639. Probably naturalised. Native of New Grenada, Guiana and Brazil.

*Crescentia cucurbitina*, *L.*—V. without number. West Indies and Panama.

*Crescentia Cujete*, *L.*—V. 917. West Indies and Central America to Peru and Brazil. Generally cultivated in warm countries.

## PEDALINEÆ.

*Martynia diandra*, *Glox.*—V. without number. Mexico, Antigua, and Cuba.

*Sesamum indicum*, *L.*, syn. *S. orientale*, *L.*—V. 104, 527. Introduced from India.

## ACANTHACEÆ.

*Thunbergia alata*, *Bojer.*—V. 554. Introduced from Africa.

*Thunbergia fragrans*, *Roxb.*—V. 40, 757. Introduced from tropical Asia.

*Thunbergia grandiflora*, *Roxb.*—V. 1307. Introduced from India.

*Ruellia tuberosa*, *L.*—V. 580, 1602; B. 1; C. 17; M. 18; U. 24. Texas and Mexico southward to Guiana and Peru.

*Ruellia fulgida*, *Andr.*, syn. *Stemonacanthus fulgidus*, *Griseb.*—V. 1804. Venezuela and New Grenada.

*Ruellia*, two species doubtfully referred to this genus.—V. 35, 1199; B. 204.

*Blechnum Brownei*, *Juss.*—V. 35, 583, 1201; B. 215. Mexico and the West Indies southward to Ecuador.

*Dædalacanthus nervosus*, *T. Andl.*—V. 1598. Introduced from India.

*Barleria lupulina*, *Lindl.*—V. 1198. Introduced from Madagascar.

*Asystasia coromandeliana*, *Nees.*—V. 103. Introduced from the Old World.

*Andrographis paniculata*, *Nees.*—V. 978; B. 2. Introduced from India.

*Lepidagathis alopecuroidea*, *R. Br.*—V. 494, 686. Generally diffused in tropical America and the West Indies.

*Aphelandra pectinata*, *Willd.*—V., Guilding. Mexico and West Indies to Columbia, Guiana, and Peru.

*Beloperone sphærosperma*, *Benth. et Hook. fil.*, syn. *Justicia sphærosperma*, *Vahl.*—V. 486, 1200; B. 223. Guiana.

*Beloperone violacea*, *Planch. et Lindl.*, syn. *Justicia carthaginensis*, *L.*—V., Guilding. Mexico and the West Indies to Columbia and Peru.

*Dianthera pectoralis*, *Murr.*—V. 1216. Mexico and the West Indies to Brazil.

*Dianthera secunda*, *Griseb.*—V. 544. West Indies and Panama to Columbia, Peru and Guiana.

*Jacobinia coccinea*, *Hiern.*, syn. *Pachystachys coccinea*, *Nees.*—V. 981. West Indies and Guiana to Brazil.

*Thysacanthus nitidus*, *Nees.*—V. 10; B. 46, 47. West Indies.

*Dicliptera martinicensis*, *Juss.*—V. 1197. Trinidad and Martinique.

#### MYOPORINEÆ.

*Bontia daphnoides*, *L.*—V. 1533. West Indies.

#### VERBENACEÆ.

*Lantana Camara*, *L.*—V. 587; B. 185. Southern United States, West Indies, and generally dispersed in tropical America.

*Lantana crocea*, *Jacq.*—V., Guilding. West Indies to Guiana.

*Lantana involucrata*, *L.*, syn. *L. odorata*, *L.*—V. 1195; B. 3, 182, 183, 184; M. 87; U. 35. Texas and West Indies to the north part of South America and the Galapagos Islands.

*Lantana Radula*, *Sw.*—V., Guilding. Dominica, Trinidad and Brazil.

*Lantana trifolia*, *L.*—V. 377, 1936a. West Indies, Central America and tropical South America.

*Lippia micromera*, *Schauer.*—V., Guilding. West Indies to Guiana.



*Lippia nodiflora*, *Rich.*—B. 187. In nearly all tropical and sub-tropical countries. One of the very commonest weeds in warm countries.

*Lippia reptans*, *H.B. et K.*—B. 200; M. 13. West Indies and Mexico to Brazil and Peru.

*Stachytarpheta jamaicensis*, *Vahl.*—V. 60; B. 224; M. 20. Florida, Mexico and West Indies to Brazil.

*Stachytarpheta strigosa*, *Vahl.*—V. 218. St. Thomas and Trinidad.

*Priva echinata*, *Juss.*—V. 714; B. 216; U. 31. Generally diffused in the warmer parts of South America and the West Indies, also Florida.

*Petræa volubilis*, *Jacq.*—V., Guilding. West Indies and Panama southward to Brazil.

*Citharexylum quadrangulare*, *Jacq.*—V. 66, 405, 664, 1786; B. 43, 44; M. 140. West Indies and Guiana.

*Duranta Plumieri*, *Jacq.*—V. 578, 1217. West Indies and Florida southward to Brazil and Peru.

*Ægiphila martinicensis*, *L.*—V. 336, 753, 1801. West Indies and Guiana.

*Tectona grandis*, *L. fil.*—V. 1273. Introduced from India.

*Cornutia pyramidata*, *L.*—V. 613; B. 63. West Indies, Mexico and Central America.

*Vitex divaricata*, *Sw.*—V. 616, 663, 1536, 1800. West Indies and Guiana.

*Clerodendron aculeatum*, *Griseb.*—V. 936; B. 79; M. 127. West Indies and Guatemala to Guiana and Brazil.

*Clerodendron fragrans*, *Willd.*—V. 5. Introduced from China.

*Clerodendron Siphonanthus*, *R.Br.*—V. 75, 1275, 1600. Introduced from India.

*Avicennia nitida*, *Jacq.*—V. 546; B. 65. West Indies to Brazil and tropical Africa.

#### LABIATÆ.

*Ocimum Basilicum*, *L.*—V. 1214. Introduced from tropical Asia or Africa.

*Ocimum micranthum*, *Willd.*—V. 523; B. 213; M. 88. West Indies, Florida, Central America and tropical South America.

*Coleus acuminatus*, *Benth.*—V. 928. Introduced from the Philippines.

*Marsypianthes hyptoides*, *Mart.*—V. 739, 809, 881. Generally diffused in tropical America and the West Indies.

*Hyptis atrorubens*, *Poit.*—V. 874. West Indies, Mexico, Guiana, and Brazil, also in Western tropical Africa.

*Hyptis brevipes*, *Poit.*—V. 617, 1208, 1926. Generally diffused in tropical America and the West Indies, also occurring in tropical Africa and Asia.

*Hyptis capitata*, *Jacq.*—V. 121, 1320. Generally dispersed in tropical America and the West Indies, also in the Galapagos Islands.

*Hyptis pectinata*, *Poit.*—V. 431, 1204, 1205, 1206 ; B. 212. Common and generally dispersed in tropical America and the West Indies, also in tropical and South Africa.

*Hyptis spicata*, *Poit.*—V. 1204, 1373. Florida, Cuba and Trinidad southward to Buenos Ayres.

*Mentha viridis*, *L.*—V. 19. Naturalised from Europe.

*Salvia coccinea*, *L.*—V. 704, 704a ; B. 222. Southern United States, West Indies and South America.

*Salvia lamiifolia*, *Jacq.*—V. 807. Trinidad and Cuba.

*Salvia occidentalis*, *Sw.*—V. 93 ; B. 217. Florida and the West Indies to the northern part of South America, also in the Galapagos Islands.

*Scutellaria purpurascens*, *Sw.*—V. 976. West Indies and Mexico southward to Brazil.

*Scutellaria Ventenatii*, *Hook.*—V. 1274. Dominica and Columbia.

*Leonurus sibiricus*, *L.*—V. 366 ; B. 219. Native of Asia, now also widely spread in America and Africa.

*Leonotis nepetæfolia*, *R.Br.*—V. 13 ; B. 225. Tropical America, Africa and Asia.

*Leucas martinicensis*, *R.Br.*—V. 1207 ; B. 243 ; U. 19. Tropical America and Africa. Sporadic in India, but doubtfully indigenous.

#### PLANTAGINEÆ.

*Plantago major*, *L.*—V. 914, 1587. In nearly all temperate and warm countries.

#### NYCTAGINEÆ.

*Mirabilis Jalapa*, *L.*—V. 432 ; B. 309. Widely dispersed in tropical America, and cultivated in the warmer regions of the Old World.

*Boerhaavia erecta*, *L.*—V. 437, 743 ; B. 192, 194. West Indies and Central America northward to Georgia and New Mexico.

*Boerhaavia paniculata*, *Rich.*—V. 437b. West Indies and Central America northward to Texas and New Mexico, also in the Galapagos Islands.

*Boerhaavia viscosa*, *Lag. et Rodr.*—V. 437a, 979. Widely dispersed in the warmer parts of America.

*Boerhaavia*, *sp.*—V. 201.

*Pisonia aculeata*, *L.*—V. 332, 1554, 1557 ; M. 49. Widely dispersed in the tropics of both hemispheres.

*Pisonia inermis*, *Jacq.*—V. 484, 1843. West Indies and tropical America.

*Pisonia nigricans*, *Sw.*—V. 42, 1842 ; B. 58 ; M. 151. West Indies.

#### AMARANTACEÆ.

*Amaranthus paniculatus*, *L.*—V. 1596. Tropical America. Cultivated throughout India and the warmer regions of Asia.

*Amaranthus spinosus*, *L.*—V. 111 ; B. 226. Tropical America. Introduced into tropical Asia and Africa.

*Amaranthus tristis*, *L.*—V. 2; B. 228, 229; M. 5. Tropical America. Cultivated in tropical Asia.

*Amaranthus viridis*, *L.*, syn. *Euxolus viridis*, *Moq.*—B. 227. Dispersed through all warm and tropical countries.

*Cyathula prostrata*, *Bl.*—V., Guilding. Widely dispersed in tropical America, Africa, India and Polynesia, also in the Canary Islands.

*Achyranthes aspera*, *L.*—V. 87, 1593; B. 218. Diffused through all warm countries.

*Mogiphanes Jacquini*, *Schrad.*—V., Guilding. West Indies and East tropical America.

*Mogiphanes straminea*, *Mart.*—V. 321; B. 289; M. 16. West Indies and Mexico to Brazil.

*Telanthera maritima*, *Moq.*, syn. *Alternanthera ficoidea*, *R.Br.*—M. 17. West Indies, Central America, eastern coast of South America, and western coast of Africa.

*Telanthera polygonoides*, *Moq.*, syn. *Alternanthera polygonoides*, *R.Br.*—V. 1594. West Indies, Central America and eastern South America.

*Telanthera*?—V. 882, 1595; B. without number; M. 14.

*Alternanthera Achyrantha*, *R.Br.*—V. 857. Widely dispersed in the warmer parts of America, also in the Canary Islands and South Europe.

*Alternanthera sessilis*, *R.Br.*—V. 455. Dispersed through all warm countries.

*Philoxerus vermiculatus*, *R.Br.*—V. 1033; B. 302; M. 30; U. 39. West Indies, eastern South America and West Africa.

*Gomphrena globosa*, *L.*—V. 1229. A native of India, now naturalised in most warm countries.

*Celosia argentea*, *L.*—V. 1223, 1233. Widely diffused in tropical Asia, Africa and America.

*Iresine celosioides*, *L.*—V. 199, 574. South Carolina and Florida to Peru and Bolivia.

#### CHENOPODIACEÆ.

*Chenopodium ambrosioides*, *L.*—V. 980, 980a. Common in America, as well as in the Old World, and uncertain where it is really indigenous.

#### PHYTOLACCACEÆ.

*Rivina lævis*, *L.*—V. 320, 1319; B. 181; C. 15. West Indies and the warmer parts of America.

*Villamilla octandra*, *Hook. f.*, syn. *Rivina octandra*, *L.*—V. 549, 1614; B. 129; M. 35. West Indies, Central and tropical America.

*Petiveria alliacea*, *L.*—V. 689; B. 220. From Florida and Mexico to South Brazil.

*Microtea debilis*, *Sw.*—V. 178, 1584. West Indies, Central America and tropical South America.

*Phytolacca icosandra*, *L.*—V. 423. From the West Indies and South Mexico to Peru and Brazil.



## POLYGONACEÆ.

*Polygonum acre*, *H. B.K.*—V. 1591. Widely dispersed in America, from Canada to Buenos Ayres.

*Coccoloba excelsa*, *Benth.*?—V. 1259, 1529. Guiana.

*Coccoloba uvifera*, *Jacq.*—V. 509; B. 128; M. 155. West Indies, Central America and tropical South America.

*Coccoloba*, *sp.*—V. 1790; B. 40, 136.

## ARISTOLOCHIACEÆ.

*Aristolochia obtusata*, *Sw.*—V., Guilding. Guadeloupe.

*Aristolochia trilobata*, *L.*—V. 333, 333a. West Indies, Panama, Guiana and Brazil.

## PIPERACEÆ.

*Piper aduncum*, *L.*, syn. *Artanthe adunca*, *Miq.*—V., Guilding. West Indies and tropical America.

*Piper æquale*, *Vahl.*, syn. *Artanthe æqualis*, *Miq.*—V. 193, 1326. West Indies and Brazil.

*Piper Betle*, *Miq.*—V. 1641. Introduced from tropical Asia.

*Piper confusum*, *C. DC.*—V. 916. Cuba and San Domingo.

*Piper dilatatum*, *Rich.*, syn. *Artanthe Bredemeyeri*, *Miq.*—V. 30, 125; B. 245, 246. West Indies, Central America and tropical South America.

*Piper hirsutum*, *Sw.*, syn. *Artanthe scabra* var. *hirsuta*, *Griseb.*—V. 33, 48, 828, 1325, 1921. West Indies and Central America to Peru and Brazil.

*Piper nigrum*, *L.*—V. 1324. Cultivated in most tropical countries. Native of tropical Asia.

*Piper peltatum*, *L.*, syn. *Pothomorphe peltata*, *Miq.*—V. 190. West Indies, Central America and the northern part of South America.

*Piper Sieberi*, *C. DC.*, syn. *Enckea Sieberi*, *Miq.*—V. 219, 1922. West Indies, Venezuela and Argentina.

*Piper tuberculatum*, *Jacq.*, syn. *Artanthe tuberculata*, *Miq.*—V., Guilding. West Indies and tropical America.

*Piper*, *sp.*—V. 1923.

*Peperomia alpina*, *A. Dietr.*?—V. 1643. Jamaica and Cuba.

*Peperomia cuneata*, *Miq.*, syn. *Peperomia obtusifolia* var. *cuneata*, *Griseb.*—V. 1322. Not known from elsewhere.

*Peperomia exilis*, *Griseb.*—V. 1647. West Indies.

*Peperomia hernandiæfolia*, *A. Dietr.*—V. 920. West Indies.

*Peperomia magnoliæfolia*, *A. Dietr.*, syn. *P. amplexicaulis* var. *magnoliifolia*, *Griseb.*—V. 23, 1642. West Indies, Central America and the northern part of South America.

*Peperomia nemorosa*, *Vahl.*—V. 1645, 1646. West Indies and Guiana.

*Peperomia nummulariæfolia*, *H. B.K.*—V. 257. West Indies and South Mexico to Peru and Brazil.

*Peperomia obtusifolia*, *A. Dietr.*—V., Guilding. West Indies and tropical America.

*Peperomia ovalifolia*, *Hook.*, syn. *P. trifolia*, *A. Dietr.*—V. 871, 871 $\alpha$ , 995. West Indies.

*Peperomia pellucida*, *H. B.K.*—V. 594. West Indies and Central America to Peru and Brazil, also in tropical Africa.

*Peperomia Rupertiana*, *C.DC.*?—V. 1321, 1644; B. 244. Dominica.

*Peperomia scandens*, *Ruiz et Pav.*, syn. *P. repens*, *H. B.K.*—V. 1323. West Indies and Central America to Peru and Brazil.

*Peperomia trifolia*, *A. Dietr.*—V., Guilding. Dominica, Guadeloupe and St. Lucia.

*Peperomia vincentiana*, *Miq.*—V., 921. Not known from elsewhere.

*Peperomia*, *sp.*—V. 1925.

#### CHLORANTHACEÆ.

*Hedyosmum arborescens*, *Sw.*—V. 251, 1256. West Indies.

#### MYRISTICÆÆ.

*Myristica fragrans*, *Houtt.*—V. 1280. Native of the eastern Moluccas; naturalised in some of the West Indian islands.

*Myristica surinamensis*, *Roland.*—V., Guilding. Trinidad and East tropical America.

*Myristica*, *sp.*—V. 1520.

#### MONIMIACEÆ.

*Siparuna glabrescens*, *A. DC.*, syn. *Citrosma glabrescens*, *Presl.*—V. 24, 433, 915. West Indies.

#### LAURINEÆ.

*Aniba bracteata*, *Mez.*, syn. *Aydendron argenteum*, *Griseb.*—V. 687, 1839. From Porto Rico and Montserrat to St. Vincent.

*Endlicheria sericea*, *Nees.*, syn. *Aydendron sericeum*, *Griseb.*—V. 240, 323, 353, 1840. West Indies and East tropical America.

*Cinnamomum zeylanicum*, *Bl.*—V. 1572. Native of the East Indies, now cultivated or naturalised in many parts of the tropics.

*Persea gratissima*, *Gærtn.*—V. 275, 1571. West Indies and tropical America.

*Ocotea Sieberi*, *Hemsl.*, syn. *Oreodaphne cernua*, *Nees.*—V. 512. Central America and West Indies.

*Ocotea martinicensis*, *Mez.*—V. 428, 428 $\alpha$ . Jamaica and Montserrat to Martinique.

*Ocotea*, *sp.*?—V. 1567.

*Nectandra membranacea*, *Griseb.*—V. 1272. West Indies.

*Nectandra patens*, *Griseb.*—V. 636, 681, 733, 1543. West Indies.

*Nectandra willdenoviana*, *Nees.*, syn. *N. coriacea*, *Griseb.*—V. 1569; B. 51, 52. Florida and West Indies.

*Cassytha americana*, *Nees.*—V. 1918; M. 46. Tropics of America, Africa, Asia and Australia.

*Hernandia sonora*, *Linn.*—V. 1651. West Indies and Pacific Islands.

## THYMELÆACEÆ.

*Daphnopsis caribæa*, *Griseb.*—V. 927, 1284. West Indies.

## LORANTHACEÆ.

*Loranthus emarginatus*, *Sw.*—V., Guilding. Jamaica and Antigua.

*Loranthus uniflorus*, *Jacq.*—V. 1282, 1624, 1625, 1626. West Indies.

*Dendrophthora myrtilloides*, *Eichl.* syn. *Phoradendron myrtilloides*, *Griseb.*—V. 1306, 1925; B. 307; M. 34. West Indies, Brazil and Venezuela.

*Phoradendron Berterianum*, *Griseb.*—V. 297. West Indies and Venezuela.

*Phoradendron flavens*, *Griseb.*—V. 374. Mexico and West Indies to Brazil.

*Phoradendron hexastichum*, *Griseb.*—V., Guilding. Mexico and Cuba.

*Phoradendron latifolium*, *Griseb.*—V. 245, 245a, 248, 1305. Central America, West Indies and Brazil.

*Phoradendron rubrum*, *Griseb.*—V. 1623. North Mexico and West Indies to Brazil and Peru.

## EUPHORBIACEÆ.

*Pedilanthus tithymaloides*, *Poit.*—V. 340; B. 122. West Indies and Venezuela.

*Euphorbia buxifolia*, *Lam.*—V. 553, 1941; B. 105, 199; M. 22, 23; U. 27. Florida, British Honduras, West Indies and Venezuela.

*Euphorbia geniculata*, *Ort.*, syn. *E. heterophylla* var. *prunifolia*, *Griseb.*—V. 744. Texas and West Indies to Brazil and Peru.

*Euphorbia hypericifolia*, *L.*—V. 106; B. 198; M. 12. Widely dispersed in the warmer parts of America.

*Euphorbia linearis*, *Retz.*, syn. *E. articulata*, *Burm.*—V. 208, 1940. West Indies.

*Euphorbia nudiflora*, *Jacq.*—V., Guilding. Mexico and West Indies.

*Euphorbia pilulifera*, *L.*—V. 154; B. 197; M. 12a. Widely dispersed in the warmer regions of both hemispheres.

*Euphorbia prostata*, *Ait.*—B. 202; M. 32. Widely dispersed in the warmer parts of America; also in tropical Africa, Bourbon and Mauritius.

*Euphorbia thymifolia*, *Burm.*, syn. *E. maculata* var. *thymifolia*, *L.*—V. 335, 673, 1937. Throughout the tropics.

*Phyllanthus Conami*, *Sw.*—V., Guilding. West Indies and tropical America.

*Phyllanthus distichus*, *Muell. Arg.*, syn. *Cicca disticha*, *L.*—V. 1556. Introduced from the East Indies and naturalised in some of the West Indian Islands.

*Phyllanthus falcatus*, *Sw.*—V., Guilding. Jamaica, Bahamas and Barbadoes.

*Phyllanthus Niruri*, *L.*—V. 656. Throughout the tropics.



*Phyllanthus nobilis*, *Muell. Arg.*, syn. *Cicca antillana*, *Juss.*—V. 475, 675, 1555 ; M. 128. West Indies and tropical America.

*Phyllanthus reticulatus*, *Poir.*—V. 522, 872, 872a. Tropical Asia and Africa.

*Drypetes glauca*, *Vahl.*—V. 1810. West Indies.

*Hieronyma alchorneoides*, *Allem.*—V. 214. Trinidad, Panama and Brazil.

*Hevea guianensis*, *Aubl.*, syn. *Siphonia elastica*, *Pers.*—V., Guilding. Introduced from Guiana.

*Jatropha Curcas*, *L.*—V. 671 ; B. without number ; M. 135. Tropics of both hemispheres.

*Jatropha gossypifolia*, *L.*—V. 67 ; B. 101, 103 ; M. 11. West Indies and tropical America.

*Jatropha multifida*, *L.*—V., Guilding. St. Kitts, Venezuela and Guiana, also naturalised in Jamaica.

*Jatropha urens*, *L.*—V. 164 ; B. 102 ; M. 10. Central America, West Indies, Venezuela, Guiana and Brazil.

*Aleurites triloba*, *Forst.*—V. without number. Native of the Pacific Islands, but naturalised in India, Malaya and the West Indies.

*Croton flavens*, *L.*—V. 206, 1819 ; B. 94, 95 ; C. 9 ; M. 138 ; U. 16. West Indies.

*Croton Guildingii*, *Griseb.*—V. 457, 1251, 1512, 1814, 1815, 1816a, 1817, 1818, 1955 ; B. 91 ; M. 136. Not known from elsewhere.

*Croton helicoideus*, *Muell. Arg.*, syn. *C. niveus*, *Griseb. (non Jacq.)*.—B. 93. Venezuela.

*Croton lobatus*, *L.*—V. 703. Mexico and West Indies to Brazil and Ecuador.

*Croton niveus*, *Jacq.*—V. 1258 ; B. 92 ; M. 137. Central America, West Indies and the northern parts of South America.

*Croton populifolius*, *Sw.*—V. 28, 551, 783, 784, 1250 ; B. 88, 89, 90 ; M. 139. West Indies, Panama, Venezuela and Colombia.

*Croton pseudochina*, *Schlecht.*—V., Guilding. Trinidad and tropical America.

*Argithamnia lancifolia*, *Muell. Arg.*, syn. *Ditaxis glabella*, *Griseb.*—V. 1255, 1581, 1937 ; B. 207. West Indies and Colombia.

*Bernardia corensis*, *Muell. Arg.*, syn. *Polybœa corensis*, *Kl.*—V. 560 ; B. 196. West Indies.

*Bernardia carpinifolia*, *Griseb.*—V. 1257. Jamaica, San Domingo and Cuba.

*Acalypha cuspidata*, *Jacq.*—V. 878, 1514 ; B. 96. Mexico and West Indies to Peru and Brazil.

*Acalypha hernandifolia*, *Sw.*—V. 246. West Indies.

*Ricinus communis*, *L.*—V. 448 ; B. 98. Widely dispersed through the tropics.

*Plukenetia volubilis*, *L.*—V. 422, 1291. Dominica and Martinique.

*Tragia volubilis*, *L.*—V. 563, 737, 1885 ; B. 173 ; M. 44 ; U. 32. Central America, West Indies and the northern part of South America.

*Dalechampia scandens*, *L.*—V. 1156. Central America, West Indies, Venezuela and Guiana.

*Omphalea diandra*, *L.*—V. 1655. West Indies, and East tropical America.

*Hippomane Mancinella*, *L.*—V. 934; B. 142; M. 125. Florida, Central America, West Indies and the western coast of tropical South America.

*Sapium aucuparium*, *Jacq.*—V. 492, 1265. West Indies, Venezuela and Guiana.

*Sebastiana corniculata*, *Muell. Arg.*, syn. *Microstachys corniculata*, *Juss.*—V. 605. Trinidad and tropical South America.

*Hura crepitans*, *L.*—V. 804; B. 114. West Indies and tropical America.

#### URTICACEÆ.

*Celtis aculeata*, *Sw.*—B. 73, 74, 107. West Indies, South Mexico, Panama, Venezuela and Colombia to Peru.

*Trema lamarckiana*, *Bl.* syn. *Sponia Lamarckiana*, *Dcne.*—V. 6. Bahamas, Jamaica and Dominica.

*Trema micrantha*, *Bl.*, syn. *Sponia micrantha*, *Dcne.*—V. 70, 443. West Indies, tropical America.

*Dorstenia Contrayerva*, *L.*—V. 476. West Indies and South Mexico to Venezuela and Peru.

*Ficus pallida*, *Vahl.*—V. without number. Jamaica, Dominica and Columbia.

*Ficus populnea*, *Willd.*—V. 447, 924; B. 54, 55; M. 122. West Indies.

*Ficus*, two or three undetermined species.—V. 747, 913, 1408, 1560, 1732.

*Brosimum Alicastrum*, *Sw.*—V. 1755. Central America and Jamaica.

*Artocarpus incisa*, *L.*—V. 1412. Native of the Pacific Islands, now cultivated or naturalised in various parts of the tropics.

*Artocarpus integrifolia*, *L.*—V. 812. A native of India, now widely cultivated in the tropics.

*Cecropia palmata*, *Willd.*?—V. 1407. West Indies, Guiana and Brazil.

*Cecropia peltata*, *L.*—V. 211; B. 100. West Indies and Venezuela.

*Fleurya æstuans*, *Gaud.*—V. 41, 41a; B. 174. Widely dispersed in tropical America, tropical Africa and the Mascarene Islands.

*Urera baccifera*, *Gaud.*—V. 1194. West Indies and Panama to Brazil.

*Urera caracasana*, *Gaud.*—V. 713, 1604. Widely dispersed in the warmer parts of America.

*Pilea ciliaris*, *Wedd.*—V. 26, 150, 215. West Indies and Venezuela.

*Pilea diffusa*, *Wedd.*—V. 1603. Jamaica.

*Pilea microphylla*, *Liebm.*—V. 311, 873, 873a, 1938; B. 201; M. 31. West Indies and tropical America.

*Pilea ovalis*, *Griseb.*—V. 805. Trinidad.

*Pilea pubescens*, *Liebm.*—V. 56. Widely dispersed through tropical America.

*Bœhmeria ramiflora*, *Jacq.*—V. 57. West Indies.

#### MYRICACEÆ.

*Myrica*, *sp.*—V. 1279.

#### ORCHIDEÆ.

*Pleurothallis floribunda*, *Lindl.*—V. 680. Martinique.

*Pleurothallis ruscifolia*, *R.Br.*—V. 414. Widely diffused in the West Indies, from Cuba and Jamaica to Trinidad; also Guiana. Lindley unites with this the Peruvian *P. succosa*, *Lindl.*, syn. *P. multicaulis*, *Pöpp. & Endl.*, which seems distinct.

*Stelis scabrida*, *Lindl.*—V. 90, 1661. Dominica. The St. Vincent piece referred by Grisebach to *S. ophioglossoides*, *Sw.*, apparently belongs to *S. scabrida*, *Lindl.*

*Lepanthes*?—V. 1142, 1154. Two undetermined species, of which the genus is somewhat doubtful, owing to incomplete materials.

*Octomeria graminifolia*, *R.Br.*—V. 454. Dominica and Grenada, and Grisebach records it from Guadeloupe.

*Microstylis umbellulata*, *Lindl.*—V. 1144. West Indies and tropical America.

*Elleanthus lepidus*, *Rchb. f.*—V. 1414. Grenada and East tropical America.

*Elleanthus*, *sp.*—V. 1414a.

*Isochilus linearis*, *R. Br.*—V. 471. West Indies and tropical America.

*Epidendrum ciliare*, *L.*—V. 117; B. 503. West Indies and tropical America.

*Epidendrum elongatum*, *Jacq.*—V. 298. West Indies and tropical America.

*Epidendrum fuscum*, *Sw.*—V. 32, 623, 1149. West Indies and tropical America.

*Epidendrum globosum*, *Sw.*—V. 313. West Indies and Guiana.

*Epidendrum nocturnum*, *L.*—V. 1141. West Indies and tropical America.

*Epidendrum pallidiflorum*, *Hook.*—V. 1668. Dominica.

*Epidendrum ramosum*, *Jacq.*—V. 1147. West Indies and tropical America.

*Epidendrum rigidum*, *Jacq.*—V. 883, 1148. West Indies and tropical America.

*Epidendrum strobiliferum*, *Rchb. f.*—V. 1145. West Indies and tropical America.

*Epidendrum umbellatum*, *Sw.*—V. 1149, 1150. West Indies and tropical America.

*Epidendrum vincentinum*, *Lindl.*—V. building. Not known from elsewhere.

*Epidendrum*, *sp.*—V. 1153, 1667.



*Brassavola cucullata*, *R.Br.*—V. 638, B. without number; M. 69; U. 13. West Indies and tropical America.

*Polystachya luteola*, *Hook.*—V. 289, 450, 900. West Indies and tropical America.

*Cyrtopodium Andersonii*, *R.Br.*—V. (Grisebach). Trinidad and East tropical America.

*Cyrtopera Woodfordii*, *Lindl.*—V. 401. West Indies and tropical America.

*Xylobium pallidiflorum*, *Rolfe*, syn. *Maxillaria pallidiflora*, *Hook.*—V. 1422. Dominica and Grenada.

*Dichæa graminoides*, *Lindl.*, syn. *D. graminea*, *Griseb.*—V., Guilding. West Indies and tropical America.

*Dichæa muricata*, *Lindl.*—V. 1011. West Indies and tropical America.

*Ornithidium coccineum*, *Salisb.*—V. 1146, 1151. Dominica, Martinique and Grenada, and Grisebach records it from Jamaica.

*Rodriguezia secunda*, *H. B.K.*—V., Guilding. Trinidad and tropical America.

*Oncidium altissimum*, *Sw.*—V. 244. Porto Rico, Dominica and Martinique.

*Oncidium luridum*, *Lindl.*—V. 685. West Indies, Mexico and Venezuela.

*Leochilus cochlearis*, *Lindl.*—V. 1662. Jamaica, Cuba and Trinidad.

*Ionopsis utricularioides*, *Lindl.*—V. 749, 794. West Indies and tropical America.

*Ionopsis*, *sp.*—V. 1666. Indeterminable.

*Vanilla phæantha*, *Rehb. f.*—V. 1336. Cuba and San Domingo. The St. Vincent specimen cited by Grisebach under *V. planifolia*, *Andr.*, belongs here.

*Cranichis muscosa*, *Sw.*—V. 1144, 1665. Jamaica, Cuba, Dominica, Martinique, Grenada and Trinidad.

*Prescottia stachyoides*, *Lindl.*—V. 949. West Indies and tropical America.

*Ponthieva petiolata*, *Lindl.*—V. 949, 1952. Jamaica, Cuba, Dominica, Martinique, St. Lucia and Grenada.

*Spiranthes orchoides*, *Hemsl.* syn. *Stenorrhynchus orchoides*, *Rich.*—V. 306. West Indies and tropical America.

*Pelexia spiranthoides*, *Lindl.*—V. McRae. Jamaica, Cuba, and San Domingo.

*Physurus hirtellus*, *Lindl.*—V. 1372, 1664. Jamaica, Cuba, Dominica, Martinique, St. Lucia and Grenada.

*Physurus plantagineus*, *Lindl.*—V. 1663. Jamaica, Cuba, Dominica, Martinique, Grenada and Trinidad.

*Pogonia macrophylla*, *Lindl.*—V. 1924, 1951. Jamaica, Cuba and Dominica.

*Chloræa Ulantha*, *Rolfe*, syn. *Ulantha grandiflora*, *Hook. Bot. Mag.*, sub t. 2990; *Griseb. Fl. Brit. W. Indies*, p. 633; *Neottia? grandiflora*, *Hook. Bot. Mag.*, t. 2956.—V., Guilding. It is strange that nothing more should be known about this remarkable plant than is

contained in the original description. Grisebach says it is probably not indigenous in St. Vincent, and Bentham and Hooker (Gen. Pl. iii., p. 618) cite Lindley as the authority for its being a *Chloroea*, and for its not being a native of the West Indies.

*Habenaria alata*, Hook.—V. 1155. Jamaica and Cuba, and Grisebach records it from Antigua.

*Habenaria maculosa*, Lindl.—V. 1143. W. Indies and tropical America.

#### SCITAMINEÆ.

*Hedychium coronarium*, L.—V. 728. Introduced from tropical Asia.

*Zingiber officinale*, Rosc.—V. 1963. Cultivated throughout the tropics; native country uncertain, though probably tropical Asia.

*Costus cylindricus*, Jacq.—V., Guilding. Martinique, Trinidad and Guiana.

*Costus spicatus*, Sw.—V. 328. West Indies.

*Costus spiralis*, Rosc.—V., Guilding. Trinidad and Brazil.

*Alpinia nutans*, Rosc.—V. 797, 1964. Naturalised in the West Indies. Native of tropical Asia.

*Renealmia caribæa*, Griseb.—V. 15, 817. Dominica and Martinique.

*Renealmia occidentalis*, Griseb.—V., Guilding. West Indies, Panama and New Granada.

*Renealmia*, *sp.*—V. 1965.

*Ischnosiphon Arouma*, Korn.—V. 267. West Indies, Guiana, Brazil.

*Maranta arundinacea*, L.—V. 189. West Indies and tropical America.

*Maranta indica*, Tuss.—V., Guilding. West Indies and tropical America.

*Calathea Allouya*, Lindl.—V., Guilding. West Indies and Guiana.

*Calathea myrosma*, Lindl.—V., Guilding. West Indies and Guiana.

*Canna coccinea*, Ait.—V., Guilding. West Indies and Guiana.

*Canna glauca*, L.—V. 1. West Indies, Mexico and tropical South America.

*Heliconia Bihai*, Sw.—V. 1410, 1699, 1699a, 1962, 1962a. West Indies, Mexico, Guiana and Western tropical South America.

*Heliconia hirsuta*, L. fil.—V., Guilding. Tropical America.

#### BROMELIACEÆ.

*Bromelia Pinguin*, L.—V. 1684. West Indies and tropical America.

*Karatas Plumieri*, E. Morr.—V. 1685. West Indies and Panama to Guiana.

*Æchmea bracteata*, Griseb.—V. 646, 1425, 1426. West Indies.

*Æchmea odora*, *Baker*.—V. 481; B. 305. West Indies, French Guiana and Brazil.

*Pitcairnia alta*, *Hassk.*—V. 1430, 1681. B. without number. West Indies.

*Pitcairnia bracteata*, *Ait.*—V. 624, 826, 1432. West Indies.

*Caraguata lingulata*, *Lindl.*—V. 1683. West Indies, Guiana, Columbia and Ecuador.

*Tillandsia compressa*, *Bertero*.—V. 1680. Jamaica.

*Tillandsia fasciculata*, *Sw.*—V., Guilding. Florida, Mexico and West Indies.

*Tillandsia martinicensis*, *Baker*.—V. 1428. Martinique.

*Tillandsia megastachya*, *Baker*, syn. *T. foliosa*, *Griseb.*—V. 1427. 1682 is perhaps the fruit of this species. Not hitherto collected elsewhere.

*Tillandsia polystachya*, *L.*—V. 1424, 1686. West Indies, South Mexico and Columbia.

*Tillandsia utriculata*, *L.*—V. 1431; B. 304. Florida, West Indies, Venezuela and Guiana.

*Tillandsia (Vriesia) sp.*—V. 504.

*Catopsis nitida*, *Baker*, syn. *C. nutans*, *Griseb.*—V. 774. Florida, West Indies and British Guiana.

#### HÆMODORACEÆ.

*Xiphidium floribundum*, *Sw.*—V. 1423. Mexico and West Indies to Brazil.

*Sansevieria guineensis*, *Willd.*—V. 1706. Introduced from tropical Africa.

#### IRIDEÆ.

*Trimezia martinicensis*, *Herb.*, syn. *Cipura martinicensis*, *H. B. K.*—V. 637. West Indies and Mexico to South Brazil.

*Cipura plicata*, *Griseb.*—V. 715. West Indies.

#### AMARYLLIDÆÆ.

*Hypoxis decumbens*, *L.*—V. 14. From Mexico and West Indies to Peru and Buenos Ayres.

*Curculigo scorzonæræfolia*, *Baker*, syn. *Hypoxis scorzonærifolia*, *Lam.*—V., Guilding. West Indies and tropical America.

*Zephyranthes tubispatha*, *Herb.*, syn. *Amaryllis tubispatha*, *Ker.*—V. 1702. West Indies, Venezuela and New Grenada.

*Hippeastrum equestre*, *Herb.*, syn. *Amaryllis equestris*, *Ait.*—V. 1701. From Mexico and West Indies to Chili and Brazil.

*Hymenocallis caribæa*, *Herb.*—V. 385; B. 306. West Indies.

*Agave caribæa*, *Baker?*—V. 1704, 1705.

*Agave rigida*, *Mill.* var. — V., J. H. Hart. A short-leaved form, known only from St. Vincent.

*Furcræa gigantea*, *Vent.* var. *willemetiana*, *Roem.* — V., Powell, West Indies.

*Furcræa cubensis*, *Haw.*—B. without number. West Indies, tropical America.



## DIOSCOREACEÆ.

*Dioscorea alata*, *L.*—V. 1886, 1888. West Indies, said to be introduced. Tropical India, tropical Africa, Fiji and Samoa.

*Dioscorea cayennensis*, *Lam.*—V. 116. West Indies, Panama, Guiana and Brazil.

*Dioscorea multiflora*, *Presl.*—V. 230, 426, 1313. West Indies and Brazil.

*Dioscorea pilosiuscula*, *Berter.*—V. 620. West Indies.

*Dioscorea trifida*, *L.*—V. 120. Jamaica, Guiana and Brazil.

## LILIACEÆ.

*Smilax solanifolia*, *A.DC.*—V. 923, 1880. St. Lucia and Trinidad.

*Smilax*, two or three undetermined species.—V. 233, 312, 1615, 1878, 1879.

*Aloe vera*, *L.*, syn. *Aloe vulgaris*, *Lam.*—V. 1707. Native of the Mediterranean region, but now introduced into many of the warm regions of the world.

## COMMELINACEÆ.

*Commelina nudiflora*, *L.*—V. 22, 759. Common in the hot moist regions of the whole world.

*Commelina virginica*, *L.*—V. 1953; B. 171; M. 50; U. 22. Spread from Texas and Cuba to Paraguay.

*Cyanotis cristata*, *Rœm. et Sch.*—V. 760. Introduced from the Old World.

*Tradescantia elongata*, *Mey.*—V., Guilding. West Indies and tropical America.

*Tradescantia geniculata*, *Jacq.*—V. 456, 700, 1369, 1660. Widely diffused through the West Indies, and extending from Mexico to Paraguay; also in the Sandwich Islands.

*Callisia repens*, *L.*—V. 1659. West Indies and Mexico to Brazil and Peru.

*Rhœo discolor*, *Hance*, syn. *Tradescantia discolor*, *L'Herit.*—V. 1703; B. 14. Guadeloupe, Cuba, St. Thomas, Mexico; introduced into Jamaica.

## PALMÆ.

*Areca Catechu*, *L.*—V. 1711, 1969. Fruit only. Extensively cultivated in India and Malaya, in some part of which it is probably indigenous.

*Oreodoxa oleracea*, *Mart?*—V. 1710. West Indies.

*Chamædorea*, *sp.*—V. 1712. The leaves of V. 1711 also belong to this genus.

*Geonoma Brongniartii*, *Mart.*—V. 1433. Martinique, Trinidad, Bolivia.

*Caryota urens*, *L.*—V. 1714. Introduced. Tropical Asia.

*Bactris major*, *Jacq.*—V. 1709. New Grenada.

*Desmoncus polyacanthus*, *Mart.*—V. 1713. Tobago, Trinidad, Guiana, Brazil.

*Acrocomia*, *sp.*—V. without number.

*Martinezia erosa*, *Linden*.—V. 239. West Indies.

*Cocos*, *sp.*?—V. 1969. Leaves only.

The seed of a small palm, believed to be a species of *Prestoea*, growing on the slopes of the St. Vincent Soufrière, was brought to Kew by Mr. Morris in May 1886. No specimens of this appear to have been received from Messrs. Smith. It is very desirable to obtain adequate herbarium material in order to determine this interesting plant.

#### CYCLANTHACEÆ.

*Carludovica Plumieri*, *Kunth*.—V. 149, 691, 1413. Dominica, Trinidad and Tobago.

#### AROIDEÆ.

*Pistia stratiotes*, *L.*—V. 224. Tropics of the whole world.

*Caladium bicolor*, *Vent.*—V. 1690. West Indies, Guiana and Brazil.

*Caladium hæmatostigma*, *Kunth*.—V. 799, 1957. Brazil.

*Caladium marginatum*, *C. Koch*?—V. 1691.

*Caladium purdianum*, *Schott.*—V. 1415. Brazil and Peru.

*Xanthosoma hastifolium*, *Schott.*—V. 1421. Brazil.—V. 1961 is perhaps a variety of this species.

*Xanthosoma helleborifolium*, *Schott.*—V. 1419. West Indies, Central and tropical South America.

*Xanthosoma*, two or three undetermined species.—V. 1420, 1692, 1693, 1694, 1695, 1696, 1697, 1958, 1959, 1960.

*Philodendron hederaceum*, *Schott*?—V. 1688. West Indies and tropical America.

*Philodendron*, *spp.*—V. 263, 1687.

*Montrichardia*, *sp.*—V. 1689.

*Dieffenbachia Seguine*, *Schott.*—V. 1411. West Indies, Venezuela, Guiana and Brazil.

*Monstera Adansonii*, *Schott.* *Monstera pertusa*, *Griseb.*—V. 37. West Indies and tropical South America.

*Anthurium Guildingii*, *Schott*, syn. *Anthurium concinnum*, *Schott.*—V. 368, 1416, 1417, 1418, 1698, 1698a. Guadeloupe and Martinique.

*Anthurium Huegelii*, *Schott.*—V. 1954. Guadeloupe, Dominica and Jamaica.

#### CYPERACEÆ.

*Kyllinga odorata*, *Vahl.*, syn. *Kyllinga triceps*, *Griseb.*—V. 1083. America, from Florida to Argentina, common.

*Kyllinga brevifolia*, *Rottb.*, syn. *Kyllinga monocephala*, *Griseb.* (*non Rottb.*).—V. 212. World, except north cool regions, abundant.

*Kyllinga pumila*, *Michx.* V. 408. America, from North United States to South Brazil, common; also tropical Africa.

*Pycreus polystachyus*, *Beauv.*, syn. *Cyperus polystachyus*, *Rottb.*—V. 879; also var. *hahniana*, *C. B. Clarke*, syn. *Cyperus hahnianus*, *Bæckl. in Flora*, LVI., p. 138. B. 347. World, in warm regions, especially near the sea, common. The variety was only previously known from Martinique (*Sieber, Agrostotheca*, n. 145).

*Cyperus elegans*, *L. (non Kunth)*, syn. *C. viscosus*, *Aiton*.—V. 1088, 1091; B. 341. West Indies, abundant, also Florida and Galapagos Islands.

*Cyperus compressus*, *L.*—C. 22. World, in warm regions; in America from Virginia to South Brazil, common.

*Cyperus diffusus*, *Vahl.*, syn. *C. elegans*, *Swartz*, *C. laxus*, *Griseb.*—V. 1090, 1675, 1970. World, in tropical regions, common.

*Cyperus distans*, *L. f.*—V. 1677. World, in tropical and subtropical regions; in America from Cuba to Rio Janeiro, common.

*Cyperus rotundus*, *L.*—B. 338; M. 53. World, in warm regions; a noxious weed.

*Cyperus sphaclatus*, *Rottb.*—V. 520, 842. America and Africa, in warm regions; in the former from California to South Brazil, very plentiful in the West Indies.

*Mariscus ferax*, *C. B. Clarke*, syn. *Cyperus ferax*, *Rich.*, *C. odoratus*, *Griseb. (non L.)*, and *C. flexuosus*, *Vahl.*—V. 351, 722. World, in warm regions; very plentiful in America from New Orleans to Argentina.

*Mariscus flavus*, *Vahl.*, syn. *Cyperus flavamariscus*, *Griseb. partim.*—V. 1084. America, Texas to Argentina, common.

*Mariscus rufus*, *H. B.K.*, syn. *Cyperus ligularis*, *L.*—V. 346; B. 337; M. 54. America, Virginia to South Brazil, plentiful in West Indies, Africa, and Mascarene Islands.

*Mariscus Jacquinii*, *H. B.K.*—V. 243. Central America and Venezuela. Received from no other West Indian Island except St. Vincent.

*Mariscus purpurascens*, *C. B. Clarke*, syn. *Cyperus brunneus*, *Griseb. partim.*—V. 381. West Indies, Martinique, Guadeloupe, Dominica and Trinidad.

*Eleocharis interstincta*, *R. Br.* syn. *Scirpus plantagineus*, *Griseb. (non L.)*.—V. 11. Tropical and sub-tropical America, general.

*Fimbristylis complanata*, *Link.* syn. *Scirpus amentaceus*, *Griseb.*—V. Guilding. World, in warm regions, general.

*Fimbristylis ferruginea*, *Vahl.* syn. *Scirpus ferrugineus*, *L.*—V. 41; M. 52. World, in warm regions, especially near the sea, very common.

*Fimbristylis diphylla*, *Vahl.* syn. *Scirpus brizoides*, *Sm.*—V. 115, 1086, 1972; B. 339. World except Arctic and cold regions, universal and abundant.

*Fimbristylis monostachya*, *Hassk.* syn. *Abildgaardia monostachya*, *Vahl.*—V. 850; B. 342; C. 21; M. 51. World, in warm regions, general.

*Fuirena umbellata*, *Rottb.*—V. 929. World, in warm regions, general.

*Dichromena radicans*, *Cham. et Schlecht.*—V. 237. West Indies and Central America, very common.

*Dichromena ciliata*, *Vahl.*, syn. *Rynchospora pura* and *R. vahliana*, *Griseb.*—V. 539; B. 346. Tropical America, from Mexico to Uruguay, plentiful in West Indies.

*Rynchospora polyphylla*, *Kunth.*—V. 133. Central America. West Indies, common, Venezuela and New Grenada.



*Rynchospora tenuis*, *Link.*, syn. *R. cubensis*, *Griseb.*—V. 843, America, from Mexico to Uruguay.

*Rynchospora micrantha*, *Vahl.*—V. 779, 1085. West Indies, common; Central America, Brazil, and tropical West Africa.

*Rynchospora longiflora*, *Presl.*, syn. *R. florida* *Griseb.* partim.—V. 1089, 1676. West Indies, Martinique, Dominica and Guadeloupe.

*Cladium restioides*, *Benth.*, syn. *Machaerina restioides*, *Vahl.*—V. 134. West Indies, common.

*Scleria latifolia*, *Sw.*—V. 694, 708, 741, 758. West Indies, frequent, also Guatemala and Venezuela.

*Scleria arundinacea*, *Kunth.*, syn. *S. latifolia*, var.  $\beta$  et  $\gamma$ , *Griseb.*—V. 741a, 1971. West Indies and tropical South America.

*Scleria pratensis*, *Nees.*—V. 88, 707; B. 343, 353. Common in the warmer parts of America, from Mexico and the West Indies to Paraguay.

*Scleria lithosperma*, *Sw.*—V. 1087; B. 340. World, in tropical and sub-tropical regions, common.

*Scleria reflexa*, *H. B.K.*, syn. *S. flagellum*, *Berg.*—V. 262. West Indies and Central America.

*Scleria mitis*, *Berg.*—V. 1674. Tropical America, common; from Panama to South Brazil. In the West Indies, received only from St. Vincent and Guadeloupe.

#### GRAMINEÆ.

*Paspalum cæspitosum*, *Flügge.*—V. 1977; B. 376. Jamaica and Cuba to Guiana.

*Paspalum compressum*, *Nees.*—V. 192, 1106, 1109; B. 17, 378. West Indies and Central America southward to Ecuador and Paraguay.

*Paspalum conjugatum*, *Berg.*—V. 1100; B. 377. Central America, West Indies, and tropical South America; also tropical Asia and Africa.

*Paspalum densum*, *Poir.*—V., Guilding. Cuba and Mexico to Brazil.

*Paspalum distichum*, *L.*—V. 300, 1672, 1980; B. 22, 359, 360. Very widely dispersed in warm countries, including Chili.

*Paspalum fimbriatum*, *H. B.K.*—V. 831, 1374; U. 50. West Indies, New Grenada and Brazil.

*Paspalum plicatulum*, *Michx.*—V. 970, 1111. North America, Mexico, West Indies, Columbia to Brazil.

*Paspalum saccharoides*, *Nees.*, syn. *Tricholœna saccharoides*, *Griseb.*—V. 601. Trinidad, Dominica, Martinique, Panama and Venezuela.

*Paspalum setaceum*, *Michx.*—V. 832, 1978, 1979; M. 62. From Massachusetts and Illinois southward through Mexico, Bermudas, and the West Indies to Brazil.

*Paspalum sieberianum*, *Steud.*—V. 800, 808. West Indies.

*Paspalum virgatum*, *L.*—V. 80; B. 357. West Indies, Central America, Guiana, New Grenada, Brazil and Paraguay.

*Eriochloa polystachya*, *H. B.K.*, syn. *E. punctata*, *Hamilt.*—V. 566, 1096, 1353; B. 20, 25. Southern United States, West Indies, and Mexico southward to Uruguay, and widely dispersed in the warmer regions of the Old World.

*Isachne arundinacea*, *Griseb.*—V. 361, 650. Jamaica, Martinique, and Venezuela.

*Panicum brevifolium*, *L.*—V. 185. West Indies, Central America and Columbia, to Peru and Brazil.

*Panicum colonum*, *L.*—V. 582, 1098; B. 21, 367; M. 67. West Indies; common in all tropical countries.

*Panicum costatum*, *Roxb.*, syn. *P. flavescens*, *Sw.*—V. 314, 641, 1097, 1102, 1352, 1669. West Indies, tropical Africa and Asia.

*Panicum divaricatum*, *L.*—V. 375, 971, 1105, 1976. South Florida, West Indies, Central and South America.

*Panicum fasciculatum*, *Sw.*, syn. *P. fuscum*,  $\beta$ . *fasciculatum*, *Sw.*—V. 565, 1100, 1670; B. 22, 366, 369. West Indies, Mexico, and tropical South America.

*Panicum frondescens*, *Mey.*—V. 187. Trinidad, Guiana, Brazil.

*Panicum horizontale*, *Mey.*, syn. *Digitaria setigera*, *Roth.*—V. 322, 693, 931, 1108; B. 375; M. 59; U. 40. West Indies. All tropical countries, and the Cape of Good Hope, according to Grisebach. A variety of *P. sanguinale*, *L.*

*Panicum leucophæum*, *Kunth*, syn. *Tricholana insularis*, *Griseb.*—V. 392, 1094, 1354; B. 23, 356; U. 43, 44. Texas, West Indies, Mexico, and Central and South America.

*Panicum linkianum*, *Kunth*, syn. *Digitaria marginata*, *Link.*—V. 231, 1107. West Indies. Common in tropical America, including Mexico and Central America. According to Grisebach widely dispersed in the tropics of the Old World. Usually regarded as a form of the very widely diffused *P. sanguinale*, *L.*

*Panicum maximum*, *Jacq.*—V. 288; M. 68. West Indies and Mexico to Brazil; originally introduced into America from Tropical Africa, according to Humboldt. (Guinea Grass.)

*Panicum palmifolium*, *Poir.*, syn. *P. plicatum*, *Lam.*—V. 226. Jamaica, Dominica, Trinidad, tropics of the Old World.

*Panicum pilosum*, *Sw.*, syn. *P. distichum*, *Lam.*—V. 163, 1104, 1975. West Indies, Central and South America.

*Panicum prostratum*, *Lam.*—B. 19; C. 23; M. 63. Tropics of both hemispheres. V. 370 and 1356 are also doubtfully referred to this species.

*Panicum sanguinale*, *L.*—V. 247. West Indies. Almost everywhere in tropical and sub-tropical countries.

*Panicum*, *sp.*—V. 1099.

*Ichnanthus candicans*, *Doell*, var. *glabratus*, *Doell.*—V. 127. Brazil.

*Ichnanthus pallens*, *Doell*, syn. *Panicum pallens*, *Sw.*—V. 1095. West Indies, Central America to Venezuela and Peru and Brazil, also in Tropical Asia.

*Opismenus loliaceus*, *Beauv.*, syn. *Orthopogon loliaceus*, *Spreng.*—V. 136. West Indies and Mexico to Brazil.

*Setaria caudata*, *Ram. & Schult.*, syn. *S. setosa*, *Beauv.*  $\beta$ . *caudata*, *Griseb.*—V. 463, 835; B. 367, 371. West Indies, Texas and New Mexico southward to Uruguay.—V. 1101 is also doubtfully referred to this species.

*Setaria glauca*, *Beauv.*—V. 265. West Indies; in nearly all temperate and tropical countries.

*Cenchrus echinatus*, *L.*—V. 108; B. 345; M. 58. A very widely dispersed species, ranging from Canada to Brazil, also in tropical Asia and Africa.

*Cenchrus myosuroides*, *H. B.K.*—V. 357. Cuba, Mexico, Columbia and Peru.

*Pennisetum setosum*, *Rich.*—V. 78, 1093; B. 348. West Indies and Mexico to Brazil, also in tropical Asia and Africa.

*Stenotaphrum americanum*, *Schrank.*—V. 212, 372. Widely distributed both in America and the Old World, chiefly in maritime districts.

*Olyra latifolia*, *L.*—V. 241. Throughout the West Indies, Mexico, and Central America, to Columbia, Guiana and Brazil.

*Olyra pauciflora*, *Sw.*—V. 1673. Jamaica, Antigua, St. Domingo, Cuba, and Mexico to Columbia, Guiana, Brazil and Paraguay.

*Pharus brasiliensis*, *Raddi*, syn. *P. glaber*, *H. B.K.*—V. 424; B. 350. West Indies, Florida, Mexico, New Grenada and Guiana to Brazil and Paraguay, also Peru.

*Pharus latifolius*, *L.*—V. without number. Throughout the West Indies, and in Mexico, southward to Ecuador and Brazil.

*Pariana sylvestris*, *Nees.*—V., Guilding. Perhaps introduced according to Grisebach. Brazil.

*Coix Lacryma-Jobi*, *L.*—V. 602. West Indies. Grisebach treats it as an introduced plant. Now common in the tropics of both hemispheres.

*Oryza sativa*, *L.*, syn., *O. latifolia*, *Desv.*—V. 1113. Trinidad and Cuba. Now cultivated in all warm countries, and also more or less established in a wild state.

*Arundinella martinicensis*, *Trin.*—V. 1358. West Indies.

*Antheophora elegans*, *Schreb.*—V. 102; B. 344; M. 61; U. 49. West Indies, Mexico and Central America to Columbia, Peru and Brazil.

*Manisuris granularis*, *Sw.*—V. 1112. Very widely diffused in the warmer regions of both hemispheres.

*Ischæmum latifolium*, *Kunth*, syn. *Ischæmopogon latifolius*, *Griseb.*—V. 361, 650. West Indies, Mexico and Central America to Ecuador, Peru and Brazil.

*Andropogon bicornis*, *L.* syn. *Anatherum bicorne*, *Beauv.*—V. 409. Tropical America.

*Andropogon brevifolius*, *Sw.*—V. 847. Tropical, more rarely subtropical, regions of both hemispheres.

*Andropogon condensatus*, *H. B.K.*—V. 845. Martinique, Trinidad, and Mexico, to Paraguay and Argentina.

*Andropogon saccharoides*, *Sw.*—V. 1973; B. 18, 24; M. 65. Extending from the Southern United States to Chili and Argentina.

*Andropogon squarrosus*, *L. fil.*, syn. *Vetiveria arundinacea*, *Griseb.*—V. 362. West Indies and Brazil, also India, Malaya and Mauritius. Grisebach suspects this plant to have been introduced from India.

*Andropogon*, *spp.* undetermined.—V. 1351, 972.



*Sorghum halepense*, *Pers.*—V. 165, 351, 352. Introduced from the Old World, and now cultivated and more or less naturalised in the warmer parts of America.

*Sporobolus indicus*, *R. Br.*—V. 585, 603. Common and generally dispersed in tropical and subtropical regions of both hemispheres.

*Sporobolus virginicus*, *Kunth.*—V. 348; B. 365; M. 55; U. 45. Common and very widely diffused in tropical and subtropical regions, especially in maritime districts.

*Cynodon Dactylon*, *Pers.*—V. 290; B. 362; M. 56. Bahamas, Jamaica and Antigua. In tropical and temperate countries all over the globe, but often sown and probably not indigenous in America.

*Chloris radiata*, *Sw.*—V. 232, 581; B. 358. Cuba and Panama to Peru and Brazil.

*Bouteloua sp.*—V. 1355.

*Eleusine ægyptiaca*, *Desf.*, syn. *Dactyloctenium ægyptiacum*, *Willd.*—V. 342, 1671; B. 355; M. 57; U. 42. Almost all warm countries throughout the world, though often only a colonist.

*Eleusine indica*, *Gærtn.*—V. 100, 276; B. 354; M. 60; U. 48. Almost all warm countries throughout the world, but in many places only introduced.

*Leptochloa longa*, *Griseb.*—V. 213. Trinidad.

*Leptochloa mucronata*, *Kunth.*—B. 373, 374; U. 47. Virginia and Illinois, southward through the West Indies, Mexico, and Central America to Venezuela.

*Leptochloa virgata*, *Beauv.*—V. 577, 1357. Mexico and West Indies southward to Brazil.

*Gynerium saccharoides*, *H. B.K.*, syn. *Arundo saccharoides*, *Poir.*—V. 1092. Mexico and West Indies southward to Columbia, Guiana, and Brazil.

*Eragrostis ciliaris*, *Link.*—V. 844; B. 363, 364; U. 46. South Carolina to Panama, tropical South America, the Galapagos, and in tropical Asia and Africa.

*Eragrostis pilosa*, *Beauv.*—V. 525, 834. Temperate and tropical countries of the globe.

*Eragrostis poæoides*, *Beauv.*, syn. *E. minor*, *Host.*—V. 411. A very widely dispersed and variable grass.

*Eragrostis.* There are two undetermined species of this genus, namely, V. 1103 and B. 361.

*Orthoclada rariflora*, *Beauv.*, syn. *O. laxa*, *Beauv.*—V. 209. Mexico and West Indies southward to Peru, Guiana and Brazil.

## FILICES.

### GLEICHENIACEÆ.

*Gleichenia pubescens*, *H. B.K.*—V. 149, 907, 1361. Throughout tropical America.

*Gleichenia pectinata*, *Presl.*—V. 864. Throughout tropical America.

## CYATHEACEÆ.

*Cyathea arborea*, *Smith.*—V. 156, 196, 947, 986, 1014, 1131, 1349. West Indies to Brazil.

*Cyathea Serra*, *Willd.*—V., Guilding. Throughout tropical America.

*Cyathea Tussacii*, *Desv.*—V. 962, 1018. West Indies and Venezuela.

*Cyathea tenera*, *Griseb.*—V., Caley. Endemic.

*Hemitelia grandifolia*, *Spring.*—V., Guilding. Throughout tropical America.

*Hemitelia horrida*, *R.Br.*—V. 801, 849, 854. West Indies and Venezuela.

*Alsophila aspera*, *R.Br.*—V. 696, 863, 1012, 1013. West Indies and Guiana.

*Alsophila ferox*, *Presl.*—V. 196, 987. Throughout tropical America.

*Alsophila infesta*, *Kunze.*—V. 292, 1717. Throughout tropical America.

## HYMENOPHYLLACEÆ.

*Hymenophyllum vincentinum*, *Baker*, in *Ann. Bot.* vol. v., p. 164, t. 10.—A new species. V. 604, 1067; and var. *latifolium*, *Baker*, l. c. —V. 1066.

*Hymenophyllum polyanthos*, *Sw.*—V. 365, 611, 1062, 1063. Cosmopolitan.

*Hymenophyllum hirsutum*, *Sw.*—V. 364, 1070, 2071. Tropical and South temperate America and Mascarene Islands.

*Hymenophyllum latifrons*, *V.D.B.*—V. 1072. West Indies.

*Hymenophyllum hirtellum*, *Sw.*—V., Guilding. Throughout tropical America.

*Hymenophyllum lineare*, *Sw.*—V. 1069. Tropical America, Mascarene Islands and Natal.

*Hymenophyllum ciliatum*, *Sw.*—V. 254, 480, 965, 1074, 1075, 1076, 1077, 1365. Cosmopolitan.

*Hymenophyllum valvatum*, *H. & G.*—V. 1065, 1067. Throughout tropical America.

*Hymenophyllum fucoides*, *Sw.*—V., 851. Throughout tropical America.

*Hymenophyllum Catherinæ*, *Hook.*—V. 1068. Very rare in the highest mountains at about 3,000 feet; gathered previously only in Guadeloupe by L'Herminier, and in Jamaica, on St. Catherine's peak, at an elevation of 5,000 feet.

*Trichomanes spicatum*, *Hedw.*—V. 278. West Indies to Ecuador.

*Trichomanes membranaceum*, *L.*—V. 367. Throughout tropical America.

*Trichomanes reptans*, *Sw.*—V., Guilding. Throughout tropical America.

*Trichomanes punctatum*, *Poir.*—V. 412. Throughout tropical America.

- Trichomanes muscoides*, Sw.—V. 711, 1072. Cosmopolitan.
- Trichomanes pusillum*, Sw.—V. 425. Throughout tropical America.
- Trichomanes brachypus*, Kunze.—V., Guilding. Throughout tropical America.
- Trichomanes quercifolium*, H. & G.—V. 573. Throughout tropical America, also Natal.
- Trichomanes Krausii*, H. & G.—V. 952. Throughout tropical America.
- Trichomanes sinuosum*, Rich.—V. 665, 1078. Throughout tropical America.
- Trichomanes Bancroftii*, H. & G.—V. 580. Throughout tropical America.
- Trichomanes Kaulfussii*, H. & G.—V. 327. Throughout tropical America.
- Trichomanes lucens*, Sw.—V. 533. Throughout tropical America.
- Trichomanes alatum*, Sw.—V. 141. Throughout tropical America.
- Trichomanes pyxidiferum*, L.—V. 61, 322, 507, 628, 1081, 1724. Cosmopolitan.
- Trichomanes rigidum*, Sw.—V. 485. Cosmopolitan.
- Trichomanes crispum*, Sw.—V. 91, 892. Throughout tropical America.

## POLYPODIACEÆ.

- Dicksonia cicutaria*, Sw.—V. 1723. Throughout tropical America.
- Davallia aculeata*, Sw.—V. 1722. West Indies.
- Lindsaya guianensis*, Dryand.—V. 1027, 1093. Throughout tropical America.
- Adiantum Kaulfussii*, Kunze.—V., Guilding. Throughout tropical America.
- Adiantum intermedium*, Sw.—V., Guilding. Throughout tropical America.
- Adiantum trapeziforme*, L., var. *cultratum*, J. Sm.—V., Guilding. Throughout tropical America.
- Adiantum obtusum*, Desv.—V., Guilding. Throughout tropical America.
- Adiantum macrophyllum*, Sw.—V. Guilding. Throughout tropical America.
- Adiantum tetraphyllum*, Willd.—V., 194, 644, 957. Throughout tropical America, also West Africa.
- Adiantum Capillus-Veneris*, L.—V. 1895. Cosmopolitan.
- Adiantum concinnum*, H.B. et K.—V. 969. Throughout tropical America.
- Adiantum villosum*, L.—V. 540, 958. Throughout tropical America.
- Adiantum tenerum*, Sw.—V., Guilding. Throughout tropical America.
- Cheilanthes radiata*, R.Br.—V. 1721. Throughout tropical America.



*Cheilanthes microphylla*, *Sw.*—V. 1896. Throughout tropical America.

*Pellæa geraniæfolia*, *Fle.*—V. 1974. Cosmopolitan.

*Pteris laciniata*, *Willd.*—V. 260, 272, 960. Throughout tropical America.

*Pteris aculeata*, *Sw.*—V. 186. Throughout tropical America.

*Pteris podophylla*, *Sw.*—V., Guilding. Throughout tropical America.

*Pteris longibrachiata*, *Ag.*—V. 589. West Indies.

*Ceratopteris thalictroides*, *Brongn.*—V., Guilding. Cosmopolitan.

*Lomaria attenuata*, *Willd.*—V. 282. Cosmopolitan.

*Lomaria Plumieri*, *Desv.*—V. 1025. Throughout tropical America.

*Lomaria procera*, *Spreng.*—V. 838, 1023. Cosmopolitan.

*Blechnum longifolium*, *H. B.K.*—V., Guilding. Throughout tropical America.

*Blechnum occidentale*, *L.*—V. 302, 966. Throughout tropical America.

*Asplenium serratum*, *L.*—V. 666. Throughout tropical America.

*Asplenium alatum*, *H. B.K.*—V., Guilding. Throughout tropical America.

*Asplenium lunulatum*, *Sw.*—V., Guilding. Cosmopolitan.

*Asplenium obtusifolium*, *L.*—V. 710. Throughout tropical America.

*Asplenium auriculatum*, *Sw.*—V. 188. Throughout tropical America.

*Asplenium Serra*, *L. & F.*—V. 207. Throughout tropical America, also tropical Africa.

*Asplenium lætum*, *Sw.*—V. 358, 961, 1119, 1121. Throughout tropical America.

*Asplenium pumilum*, *Sw.*—V. 1900. Cosmopolitan.

*Asplenium cuneatum*, *Lam.*—V. 453, 1118. Cosmopolitan.

*Asplenium furcatum*, *Thunb.*—V., Guilding. Cosmopolitan.

*Asplenium rhizophyllum*, *Kunze.*—V. 682, 1018, 1898. Throughout tropical America.

*Asplenium cicutarium*, *Sw.*—V. 875, 1897. Throughout tropical America, also tropical Africa.

*Asplenium arboreum*, *Willd.*—V. 1346. West Indies and Venezuela.

*Asplenium Shepherdii*, *Kunze.*—V. 712, 890, 1122, 1123, 1719. Throughout tropical America.

*Asplenium crenulatum*, *Baker.*—V. 373. Throughout tropical America.

*Asplenium radicans*, *Schk.*—V. 24, 36, 129, 386, 416, 926, 959, 960, 1124, 1125, 1126, 1127, 1128, 1344, 1345, 1363, 1899. Throughout tropical America.

*Asplenium Godmani*, *Baker*, in *Ann. Bot.*, vol. v., p. 166, t. 11.—V. 1019. Since gathered by Mr. R. V. Sherring in Grenada.

*Asplenium marginatum*, *L.*—V. 326. Throughout tropical America.

*Aspidium semicordatum*, *Sw.*—V. 791, 944, 956. Tropical America and Asia.

*Aspidium plantagineum*, *Griseb.*—V. 171. Throughout tropical America.

*Aspidium trifoliatum*, *Sw.*—V. 140, 865, 867. Throughout tropical America; and var. *Plumieri*, *Presl.*—V. 829.

*Nephrodium conterminum*, *Desv.*—V. 964, 1130, 1360. Throughout tropical America.

*Nephrodium Sprengelii*, *Hook.*—V. 151. Throughout tropical America.

*Nephrodium limbatum*, *Desv.*—V., Guilding. West Indies.

*Nephrodium patens*, *Desv.*—V. 789. Cosmopolitan.

*Nephrodium trichophorum*, *Baker.*—V. 705. West Indies.

*Nephrodium Jenmani*, *Baker.*—V. 855. Known before only in Jamaica.

*Nephrodium brachyodon*, *Hook.*—V. 221, 451, 946. Tropical America and Asia.

*Nephrodium effusum*, *Baker.*—V. 862. Throughout tropical America.

*Nephrodium villosum*, *Presl.*—V. 292, 1021. Throughout tropical America.

*Nephrodium amplum*, *Baker.*—V. 138, 861. Throughout tropical America.

*Nephrodium furcatum*, *Hook.*—V. 860. Throughout tropical America.

*Nephrodium molle*, *Desv.*—V. 891. Cosmopolitan.

*Nephrolepis exaltata*, *Schott.*—V. 238. Cosmopolitan.

*Oleandra nodosa*, *Presl.*—V. 417. Throughout tropical America.

*Polypodium flavo-punctatum*, *Kaulf.*—V. 659. Throughout tropical America.

*Polypodium decussatum*, *L.*—V. 43. Throughout tropical America.

*Polypodium crenatum*, *Sw.*—V. 317, 697, 754. Throughout tropical America.

*Polypodium tetragonum*, *Sw.*—V. 89, 451, 785, 946, 1347, 1348; and var. *megalodus*, *Schk.*—V. 858, 1716. Throughout tropical America.

*Polypodium gramineum*, *Sw.*—V., Guilding. West Indies and Guiana.

*Polypodium marginellum*, *Sw.*—V. 170. Cosmopolitan.

*Polypodium serrulatum*, *Mett.*—V. 840. Cosmopolitan.

*Polypodium trifurcatum*, *L.*—V. 29. Throughout tropical America.

*Polypodium trichomanoides*, *Sw.*—V. 269, 933. Tropical America and Africa.

*Polypodium flabelliforme*, *Lam.*—V., Guilding. Throughout tropical America.

*Polypodium jubæforme*, *Kaulf.*—V. 42, 932. Throughout tropical America.

*Polypodium suspensum*, *L.*—V. 514, 937. Throughout tropical America.

*Polypodium cultratum*, Willd.—V. 943. Tropical America and Africa.

*Polypodium taxifolium*, L.—V. 919. Throughout tropical America.

*Polypodium pectinatum*, L.—V. 249. Throughout tropical America.

*Polypodium sororium*, H. B.K.—V. 406. Throughout tropical America.

*Polypodium piloselloides*, L.—V. 255, 658. Throughout tropical America.

*Polypodium loriceum*, L.—V. 144, 291, 293, 837, 945. Throughout tropical America.

*Polypodium incanum*, Sw.—V. 775. Cosmopolitan.

*Polypodium aureum*, L.—V. 688, 798, 1718, 1901. Tropical America.

*Polypodium lycopodioides*, L.—V. 85, 745, 1364. Cosmopolitan.

*Polypodium repens*, L.—V. 968. Throughout tropical America.

*Polypodium Phyllitidis*, L.—V. 173, 479. Throughout tropical America.

*Polypodium crassifolium*, L.—V. 1022. Throughout tropical America.

*Monogramme seminuda*, Baker.—V. 143. Throughout tropical America.

*Gymnogramme calomelanos*, Kaulf.—V. 83, 1114, 1115, 1117, 1720 var. *chrysophylla*, Kaulf.—V. 1116; and a handsome decompound finely-cut variety.—V. 325. Throughout tropical America.

*Gymnogramme elongata*, Hook.—V. 413. Throughout tropical America.

*Meniscium reticulatum*, Sw.—V. 191, 315. Throughout tropical America.

*Antrophyum lanceolatum*, Kaulf.—V. 389. Throughout tropical America.

*Antrophyum subsessile*, Kaulf.—V. 1017. Throughout tropical America.

*Vittaria lineata*, Sw.—V. 161. Cosmopolitan.

*Vittaria remota*, Fée.—V. 109. Throughout tropical America.

*Tænitis angustifolia*, R.Br.—V., Guilding. Throughout tropical America.

*Tænitis lanceolata*, R.Br.—V. 1028. Florida, Central America and West Indies.

*Hemionitis palmata*, L.—V. 973. Throughout tropical America.

*Hemionitis citrifolia*, Hook.—V. 438. Throughout tropical America.

*Acrostichum conforme*, Sw. var. *alatum*, Fée.—V. 967. Throughout tropical America.

*Acrostichum latifolium*, Sw.—V. 379, 1138. Cosmopolitan.

*Acrostichum Herminieri*, Bory.—V. 1139. Throughout tropical America.

*Acrostichum apodum*, Kaulf.—V. 380, 1137. Throughout tropical America.



*Acrostichum Smithii*, *Baker* in *Ann. Bot.* vol. v. p. 169.—V., 1105. A new species allied to *A. lineare* and *Aubertii*.

*Acrostichum viscosum*, *Sw.*—V. 376. Cosmopolitan.

*Acrostichum villosum*, *Sw.*—V. 1134. Throughout tropical America.

*Acrostichum undulatum*, *Willd.*—V. 1136. Throughout tropical America.

*Acrostichum sorbifolium*, *L.*—V. 608. Cosmopolitan.

*Acrostichum cervinum*, *Sw.* V. 281. Throughout tropical America.

*Acrostichum aureum*, *L.*—V. 593. Cosmopolitan.

*Acrostichum præstantissimum*, *Bory.*—V. 1039. West Indies only.

*Acrostichum crinitum*, *L.*—V. 1133. Mexico and West Indies.

#### MARATTIACEÆ.

*Marattia alata*, *Sm.*—V., *Guilding*. West Indies and Central America.

*Danæa alata*, *Sm.*—V. 279. West Indies.

*Danæa nodosa*, *Sm.*—V. 307, 692, 1024, 1027, 1029. Throughout tropical America.

#### LYCOPODIACEÆ.

*Psilotum triquetrum*, *Sw.*—V. 630. Cosmopolitan.

*Lycopodium reflexum*, *Lam.*—V. 1333. Throughout tropical America.

*Lycopodium dichotomum*, *Jacq.*—V. 1339. Throughout tropical America.

*Lycopodium taxifolium*, *L.*—V. 301, 735, 1337. Throughout tropical America.

*Lycopodium linifolium*, *L.*—V. 1335. Throughout tropical America.

*Lycopodium funiforme*, *Cham.*—V. 1334. Throughout tropical America.

*Lycopodium cernuum*, *L.*—V. 52, 1332. Cosmopolitan.

*Lycopodium aqualupianum*, *Spring.*—V. 1338. Throughout tropical America.

#### SELAGINELLACEÆ.

*Selaginella portoricensis*, *A.Br.*—V. 1377. West Indies.

*Selaginella rotundifolia*, *Spring.*—V. 1375. West Indies.

*Selaginella apus*, *Spring.*—V. 1376. United States and West Indies.

*Selaginella flabellata*, *Spring.*—V. 54, 119, 235, 1010. Cosmopolitan.

## SUMMARY.

The foregoing enumeration includes all the plants collected by Mr. Herbert H. Smith and his assistant, Mr. George W. Smith, whether indigenous or naturalised. It also contains 179 flowering plants and 24 ferns not collected by them, though there are specimens preserved in the Kew Herbarium on sheets mostly marked "St. Vincent, Guilding," in the handwriting of the late Sir William Hooker. There are also a few sent from the same island by Alexander Anderson and others. As to the majority of those sent by the Rev. Lansdown Guilding there can be little doubt from what is actually known of their geographical distribution, supported by the fact that no subsequent traveller has collected them in the island, that the specimens were taken from plants cultivated in the botanic garden, or, in some cases perhaps, collected in the neighbouring islands. A few of them may exist locally or may have existed, such as *Cakile equalis*, L'Her., for example, and were either overlooked by Messrs. Smith or they may have disappeared since Guilding's time. There is yet another category of plants inserted on the authority of the earlier collectors, namely, such as have never been found elsewhere and not again in the island. Among these are *Spachea perforata*, Juss. (Malpigiaceæ), and *Cyathea tenera*, Hook. (Filices). The former is represented in the Kew Herbarium by specimens presented by Guilding, and Jussieu (Monogr. Malpig., p. 75) states that there was a specimen in Delessert's herbarium from St. Vincent, collected by Caley, which probably belonged to the same species. This tree-fern is recorded by Grisebach (*Fl. Brit. W. Ind. Isds.*, p. 704) from Jamaica and elsewhere, but Mr. J. G. Baker (*Annals of Botany*, v., p. 171) mentions that the only specimen known is an imperfect one from St. Vincent, collected by Caley.

The total number of species of flowering plants collected in St. Vincent and the four adjacent islets, Bequia, Cannouan, Mustique, and Union, including naturalised plants, and those inserted on the authority of the early collectors, is about 1,150. Of these Mr. Smith collected 977, whereof at least 131 are almost certainly colonists, leaving 846 indigenous species, belonging to 490 genera and 109 natural orders. The number of species of flowering plants collected in the small islands was, respectively: Bequia, 375; Mustique, 160; Union, 49; and Cannouan, 30. With regard to the general distribution of the indigenous plants, the principal points are the wide geographical range of the majority and the smallness of the endemic element, conditions that obtain throughout the whole chain of islands from Tobago to the Virgin group, which are in striking contrast to the proportions of the endemic element in Cuba and Jamaica. There is no endemic genus in St. Vincent, but the following species have hitherto not been found elsewhere:—

<i>Trigynæa antillana</i> , Rolfe.	<i>Hoffmannia tubiflora</i> , Griseb.
<i>Spachea perforata</i> , Juss.	<i>Malouetia retroflexa</i> , Muell. Arg.
<i>Meliosma Herbertii</i> , Rolfe.	<i>Columnnea speciosa</i> , Presl.
<i>Calliandra Guildingii</i> , Benth.	<i>Peperomia cuneata</i> , Miq.
<i>Psidium guildingianum</i> , Griseb.	„ <i>vincentiana</i> , Miq.
<i>Gustavia antillana</i> , Miers.	<i>Croton Guildingii</i> , Griseb.
<i>Tibouchina cistoides</i> , Griseb.	<i>Epidendrum vincentinum</i> , Lindl.
<i>Begonia rotundifolia</i> , Lam.	<i>Tillandsia megastachya</i> , Baker.

It is probable that the working out of all the specifically unnamed plants might result in some addition to the above list; but that was too laborious a task to undertake in connection with the flora of so small an area.



Beginning with those species of smallest extension beyond the island 198 are restricted to the West Indian Islands, and eight others extend only into Southern Florida. Grisebach (*Die Geogr. Verbr. der Pfl. Westindiens*, p. 55), states that 2,000 species, or nearly half of the West Indian species he had compared, were, so far as was then known, peculiar to the islands; but, although he estimated the number of endemic Cuban species at 849, and it doubtless is very high, the proportion of endemic species for the whole of the islands to the total indigenous species is much less than half. For the eastern chain of islands it is very low, as 565 out of about 850 of the St. Vincent plants are also continental American, and most of them widely dispersed there, but they do not occur in the Old World or Polynesia. Further, 29 species are also common to Africa, and 133 are more or less generally spread in the tropics. Returning to the rarest species of those not restricted to St. Vincent, it is interesting to note that they include species at present only known to inhabit St. Vincent and Trinidad, for example: *Brownea speciosa*, *Combretum eriopetalum*, *Couroupita antillana*, *Aspidosperma sessiliflorum*, *Solanum hirtum* and *Pilea ovalis*; to St. Vincent and Jamaica: *Voyria tenella*, *Solanum retrofractum*, and *Tillandsia compressa*; to St. Vincent and Cuba: *Triumfetta grossulariæfolia*, *Erithalis augustifolia*, and *Eupatorium osceanum*; St. Vincent and St. Lucia: *Henriettella triflora*; St. Vincent and Dominica: *Begonia dominicalis* and *Stelis scabrida*; St. Vincent and Martinique: *Begonia martinicensis* and *Pleurothallis floribunda*, and St. Vincent and Hayti: *Echites circinalis*. Many apparently similar peculiarities in distribution might be given; but they do not possess much value, because a more thorough investigation might invalidate them. Nevertheless, so far as we can accept them as facts, they are interesting in relation to the spreading of plants in some localities and their extinction in others.

The predominating genera are:—

<i>Cassia</i>	-	-	-	-	-	12 species.
<i>Psychotria</i>	-	-	-	-	-	11 "
<i>Ipomœa</i>	-	-	-	-	-	18 "
<i>Solanum</i>	-	-	-	-	-	13 "
<i>Piper</i>	-	-	-	-	-	10 "
<i>Peperomia</i>	-	-	-	-	-	14 "
<i>Epidendrum</i>	-	-	-	-	-	11 "
<i>Paspalum</i>	-	-	-	-	-	11 "
<i>Panicum</i>	-	-	-	-	-	14 "
<i>Hymenophyllum</i>	-	-	-	-	-	10 "
<i>Trichomanes</i>	-	-	-	-	-	17 "
<i>Adiantum</i>	-	-	-	-	-	10 "
<i>Asplenium</i>	-	-	-	-	-	18 "
<i>Nephrodium</i>	-	-	-	-	-	12 "
<i>Polypodium</i>	-	-	-	-	-	25 "
<i>Acrostichum</i>	-	-	-	-	-	13 "

The twelve predominating natural orders:—

<i>Leguminosæ</i>	-	-	-	-	-	141 species.
<i>Gramineæ</i>	-	-	-	-	-	58 "
<i>Rubiaceæ</i>	-	-	-	-	-	52 "
<i>Compositæ</i>	-	-	-	-	-	45 "
<i>Orchideæ</i>	-	-	-	-	-	43 "
<i>Euphorbiaceæ</i>	-	-	-	-	-	38 "
<i>Cyperaceæ</i>	-	-	-	-	-	34 "
<i>Melastomaceæ</i>	-	-	-	-	-	25 "
<i>Malvaceæ</i>	-	-	-	-	-	24 "



<i>Convolvulaceæ</i>	-	-	-	23 species
<i>Solanaceæ</i>	-	-	-	22 „
<i>Piperaceæ</i>	-	-	-	22 „

The Vascular Cryptogams have been elaborated by Mr. J. G. Baker (*Annals of Botany*, v. pp. 163-172, plates 10 and 11), from which the preceding list of species and following particulars are chiefly extracted. Excluding five striking varieties, which some botanists might regard sufficiently distinct to take specific rank, St. Vincent alone has yielded 163 species belonging to 35 genera. This includes 23 species ascribed to the island on the authority of Guilding and others, but not in the collection made by Mr. Smith. One of these is the apparently endemic *Cyathea tenera*, and the distribution of the other 22 is such, that in Mr. Baker's opinion, they might occur in any of the West Indian islands. In any case the fern vegetation is very rich and varied, and in relation to the area far in excess as to number of species to that of New Zealand, which is generally regarded as one of the most highly concentrated. A glance down the list is sufficient to ascertain that a large majority of the species have a wide distribution; but in addition to the one already mentioned, there are four endemic species, namely, *Hymenophyllum vincentinum*, *Pteris longibrachiata*, *Asplenium Godmani*, and *Acrostichum Smithii*.

Altogether the vegetation of St. Vincent is varied and luxuriant, bespeaking a fertile soil and a favourable climate.